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MEDIEVAL DISCUSSIONS OF THE ETERNITY OF THE WORLD

BY

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E.J. BRILL

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INTRODUCTION

In the 1270s savage debates among philosophers, theologians, and clerical administrators at the University of Paris centered principally around three issues: the unicity of the active intellect; the animation of the heavens; and the eternity of the world. The only one of these which still seems important today, and the only one which has not become irrelevant because of a change in the world view, is the eternity of the world, or, more precisely, the possibility of a beginningless world. Although the question is not so central to our concerns as it was to the scholastics, it continues to evoke considerable interest, and indeed it has never been solved.

I should like to study the development of medieval debates on the eternity of the world between the Carolingian period and the mid-fourteenth century, and in the process to throw some light on the nature of the philosophical conflicts of the period of high scholasticism. I have tried to suppress whatever presuppositions I may have brought to the task and allow the evidence of the texts to dictate the shape of the story. Since the words of our authors are of paramount importance in a study of this kind, I have included many extensive quotations and paraphrases in the book, and I have tried to confine my generalizations to what the texts, accessible to the reader, will support.

I have been aided by the work of many scholars, some of whom I know well, others whom I have never met, all of whom are acknowledged in the notes. I am particularly indebted to Steven Baldner, who read the first six chapters, and to Norman Kretzmann, who read chapters 1 through 4, 6, and 11 and 12. Both men made numerous helpful and perceptive comments, which have significantly improved upon my original text.

Much of the content of this book has previously appeared in the form of articles in various periodicals: much of chapters 2 and 3 appeared in "Discussions of the Eternity of the World During the First Half of the Twelfth Century," *Speculum* 57 (1982), 495-508; portions of chapters 4 and 8 appeared in "Maimonides and Boethius of Dacia on the Eternity of the World," *The New Scholasticism* 56 (1982), 306-19; much of chapter 5 appeared as "Early Latin Discussions of the Eternity of the World in the Thirteenth Century," *Traditio* 43 (1987), 171-97; the material on Eustace of Arras in chapter 7 is based on "Fratris Eustachii Atrebatensis *Quaes-*

tiones septem de aeternitate," *Archives d'histoire doctrinale et littéraire du moyen âge* 55 (1986), 111-37 and 56 (1987), 59-102, while that on Arlotto of Prato is based upon "Friar Arlotto of Prato On the Eternity of the World," *Collectanea Franciscana* 56 (1986), 37-51; much of the discussion of Henry of Harclay in chapter 12 appeared in "Henricus de Harclay. *Quaestio Utrum Mundus Potuit Fieri ab Aeterno*," *Archives d'histoire doctrinale et littéraire du moyen âge* 51 (1983), 267-99 and "Henry of Harclay and the Infinite," *Journal of the History of Ideas* 45 (1984), 295-301; portions of chapters 5 and 9 appeared in "Time and Eternity in the Thirteenth Century," *Journal of the History of Ideas* 49 (1988), 27-45. I should like to thank the editors of these journals for permission to use their copyrighted material in this study.

CHAPTER ONE

THE LEGACY FROM ANTIQUITY

Concerning the origin of all things, the book of Genesis taught that

In the beginning, God created the heaven and the earth. But the earth was shapeless and empty, and there was darkness upon the face of the deep, and the spirit of God was borne over the waters. And God said: "Let light be made." And light was made. And God saw that the light was good, and he divided the light from the darkness. And he called the light day and the darkness night. And there was made evening and morning, one day.

There is much that is obscure in this account, but one thing which seems quite clear is that God created the world where before there had been nothing. "In the beginning" denoted a starting point. In any case, this was the standard way Christians understood the account which they had inherited from the Jews.

But the ancient philosophers had seemed to say something quite different,¹ and in the Latin West, from the fourth century on, Christian writers had to take account of the writings of the philosophers. The three principal authors to whom medieval Latin philosophers were indebted for their knowledge of ancient thought on the eternity of the world were Plato, Augustine, and Boethius. Although others were recovered during the twelfth and thirteenth centuries, these three were known uninterruptedly, and until the second quarter of the thirteenth century they provided the context, the point of departure, and many of the stock arguments on both sides of the question. Even after the recovery of Aristotle's natural philosophy and the translation of medieval Jewish and Muslim works into Latin, these three authors maintained their preeminent position among the authorities.

¹ By far the best discussion of the eternity of the world in antiquity is Richard Sorabji, *Time, Creation, & the Continuum* (Ithaca, 1983). Also of considerable interest are H. A. Wolfson, "Patristic Arguments against the Eternity of the World," *Harvard Theological Review* 59 (1966) 351-67 and J. Baudry, *Le Problème de l'Origine et de l'Eternité du Monde* (Paris, 1931).

Plato

According to Aristotle, Plato was the first philosopher to assign a beginning to time;² according to Calcidius³ and Boethius,⁴ Plato considered the world to be without a temporal beginning. Plato's own words give support to either of these interpretations. There was no consensus in antiquity or in the Middle Ages on Plato's meaning, and there is no more today. Perhaps Robert Grosseteste put it best when he said: "Plato seems to contradict himself."⁵ Still, the *Timaeus* was the seminal work for discussions of the eternity of the world. The crucial portion is 28A-38C:

Now, everything that comes into being must necessarily do so by virtue of some cause, for nothing comes into being whose origin is not preceded by an appropriate cause and reason. The workman determines the kind of thing he makes. When he makes his works according to the unchangeable and fashions the form and nature of his work after an unchanging model, the likeness is necessarily made beautiful and perfect; but when he models his work on a created pattern it will not be beautiful. Was the heaven then, or the world, or whatever more appropriate name you wish to call it, always in existence and without a beginning, or was it made, and did it come into being with time? It was made, inasmuch as it is visible and tangible and has a body, and is therefore sensible, since all sensible bodies of this kind and all corporeal natures are perceived by sense and opinion, and all things which come into being derive their substance from another act of coming into being. And indeed those things which come into being must have an author. But it is both difficult and profane to discover the begetter and craftsman of the universe. Certainly there is no doubt as to which kind of pattern was used as the model for the construction of the world, whether the immutable and perpetual or the created. For if it is (as indeed it is) that the world is incomparably beautiful, and its maker and craftsman is the very best, it is clear that the model according to which the world was made was immutable and pure, and it would be blasphemous to say that it was made from a created model. Since the latter would be contrary to reason, it is clear that the craftsman god followed the eternal plan in consti-

² Aristotle, *Physica* 8, 1 (251b).

³ Calcidius, *In Timaeum Commentarium* 23, ed. J. H. Waszink, *Platonis Timaeus a Calcidio translatus commentarioque instructus* (London, 1962), p. 74.

⁴ Boethius, *De consolazione philosophiae* 5, pr. 6.

⁵ Grosseteste, *Hexaëmeron* 1, 11, 2, ed. R. C. Dales and Servus Gieben, O.F.M.Cap. (London, 1982), p. 63.

tuting the world -- since it is the most beautiful of all created things and he is the greatest of causes. And since the world was modelled on that which is apprehended by reason and prudence, it must, I believe, be a copy of something. And since explaining the reason for the origins [of anything] is not easy to do, the natures of the copy and the exemplar must be distinguished. The causes which they adduce for why each and every thing is are akin to the things themselves. Thus, those of the permanent and enduring and intelligible must be lasting and constant, and the cause of something clear to the intellect and mind should be found in a clear and unchanging and unassailable reason. But the reason for those things which are made according to the model of the unchanging and perpetual but are themselves images and likenesses of reason may be analogously approximate, by so much as truth is more excellent than rumor and unsure opinion. Therefore, Socrates, I say now that if, while the nature of all things is being discussed, I should not be able to give explanations which are completely unassailable, do not be surprised that I offer explanations which are only more likely than any other. Remember that I, who am speaking, and you, who are judging, are men, and on such sublime subjects a probable explanation of this great thing is the burden of our labor. ...

I will tell you then why the founder and maker of the world of generation thought that he should make this thing. He was absolutely good, and envy is far removed from the absolutely good. Consequently he wished to make all things similar to himself insofar as the nature of each thing was capable of such blessedness. If someone should assert that the will of god is the surest origin of things, he would be right. And so god, wishing all things to be good and nothing bad, so far as the nature of each thing which came to be allowed, and finding the whole visible body lurching about with a disorderly motion and never being still, brought order out of disorder, knowing that the condition of ordered things was more excellent than that of disordered and confused. But it was not fitting that the most excellent goodness do anything except what was beautiful, and it was certain to so great a divinity that, of those things which are sensed, nothing stupid and lacking intelligence was better than the intelligent, and that intelligence arises only in the soul. Therefore, having placed intellect in soul and soul in body, he put together the whole circle of the living world with an eternal light. From this, it is clear that the sensible world is an intelligent living being by the sanction of divine providence.

Let us accept this and go on to the next stage, to the likeness of what animal its founder constituted the world. Similar to no specific animal (for perfection is in the genus, not in the species, and therefore the world was not made similar to an imperfect

thing), but of that in which there are all kinds and, as it were, certain sources of intelligible animals; since the other world encompasses genera of animals in the same manner as this world encompasses us and other things subject to sight and other senses. Therefore, god the craftsman, wishing to make this world similar to the most excellent and primary of intelligible substances, constructed a single sensible and visible animal containing within its bounds all things consistent with its nature which enjoyed life.

Now it ought to be determined whether we should call the world one or several, and we should even consider whether there are innumerable worlds. One, clearly, since it was formed according to its model, for that which contains all intelligible beings could not exist along with something else. ... In order then that it might be similar in number to the exemplar which it resembled, god made neither two worlds nor an infinite number, but he made it unique. ... Such was the whole plan of the eternal god about the god that he was about to make. He made it smooth and even, having a surface equidistant in every direction from the center, a body whole and perfect and formed from perfect bodies. And in the center he put the soul, and he ordered it to be extended uniformly throughout the body, and he made the world a circle moving in a circle, one and solitary, yet because of its excellence able to converse with itself and in need of no other friendship. And so he brought into being a most blessed thing, endowed with divine power. God did not make the soul after he made the body, even though we speak of them in this order.

... Therefore, when the whole substance of the rational animal was born according to the will of the father, he joined it to the whole body, center to center. But the soul, embracing the limits of the sky and infused throughout it and enclosing its circle, turning around on itself, began the divine origin of unwearying rational life without interruption. The body of the sky or world which was thus made was visible, but the soul itself was invisible, yet partaking of reason and harmony, since it was made more excellent than all the other intelligible beings by the most excellent cause. ... When its begetter observed what he had made to be moving and living, a likeness of the immortal gods, rejoicing, he determined that another specimen ought to be made which emulated its model even more closely. Therefore, as the model was immortal and sempiternal, so he also made the world an immortal sensible animal. But the kind of thing which is an animal is not by its nature on the same level as the eternal, and thus it seemed that the status of the work he had made and given birth to was not compatible with eternity. Therefore, to the [eternal] structure which he had made, god joined its image, moving and creeping along according to number. This moving image is called time, while the eternal structure remains pure and motionless. Then, when the

world was being born, he commanded the days and nights and months and years to be, for they did not exist before the adornment of the sky. All these things are parts of time, and when we assign them to eternity, that is, to the solitary nature, we incorrectly imagine that an indivisible thing has parts. For we say "was," "is," and "will be," but according to true and proper thought, "is" alone is proper to it, and "was" and "will be" are improper. Indeed, these are the begetters of time properly speaking, for they are motions, the one of what has gone before, the other of what is yet to be, not of eternity, but of time; for the abode of the eternal is perpetual and immutable. Therefore, it neither was nor will be younger or older, nor will it undergo any of those things which a sensible nature undergoes. All these are things which imitate eternity. But perhaps there will later be a more suitable place to discuss these matters.

Time is the same age as the sky so that, having risen together they might be dissolved together if there should ever be a proper reason for their dissolution, so that at the same time both worlds might be similar to the eternal model. The archetype is always existent through all eternity, and this sensible image of it has existed and will exist through all time.⁶

⁶ "Omne autem quod gignitur ex causa aliqua necessario gignitur; nihil enim fit, cuius ortum non legitima causa et ratio praecedat. Operi porro fortunam dat opifex suus; quippe ad immortalis quidem et in statu genuino persistentis exempli similitudinem atque aemulationem formans operis effigiem honestum efficiat simulacrum necesse est, at uero ad natium respiciens generatumque contemplans minime decorum. Omne igitur caelum vel mundus seu quo alio dignatur nomine -- faciendum est enim, quod in omni tractatu fieri decet, ut inter initia consideretur, quid sit quo de agitur; item mundus fueritne semper citra exordium temporis an sit originem sortitus ex tempore, considerandum -- factus est, utpote corporeus et qui uideatur atque tangatur, cuncta siquidem huius modi sensilis corporeaeque naturae, sensilia porro ea quae opinio sensu aliquo commota praesumit eaque omnia facta sunt habentque ex aliqua generatione substantiam; et uero ea quae fiunt habere auctorem suum constitit. Igitur opificem genitoremque universitatis tam inuenire difficile quam inuentum impossibile digne profari. Certe dubium non est, ad cuius modi exemplum animaduertit mundani operis fundamenta constituens, utrum ad immutabile perpetuamque obtinens proprietatem an ad factum et elaboratum. Nam si est -- ut quidem est -- pulchritudine incomparabili mundus, opifexque et fabricator eius optimus, perspicuum est, quod iuxta sinceræ atque immutabilis proprietatis exemplum mundi sit instituta molitio, sin uero, quod ne cogitari quidem aut mente concipi fas est, ad elaboratum. Quod cum sit rationis alienum, liquet opificem deum uenerabilis exempli normam in consuetudo mundo securum -- quippe hic generatorum omnium speciosissimus, ille auctor maximus -- operisque sui ratione prudentiaque his quae semper eadem existunt accommodatus imago est, opinor, alterius. Et quoniam rationem originis explicare non est facile factu, distinguendae sunt imaginis exemplique naturae. Causae quae, cur unaquaeque res sit, ostendunt, earundem rerum consanguineae sunt; ita constantis quidem generis stabilisque naturae et intellectui prudentiaeque rei causa et ratio constans perspicuaeque et inexpugnabilis reperitur, et uero eius quae ad similitudinem constantis perpetuaeque rei facta est ratio, utpote

imaginis imaginaria simulacrumque rationis, perfunctoriam similitudinem mutuatur quantoque est melior essentia generatione, tanto fama et opinionis incerto praestantior ueritas. Quare praedico iam nunc, Socrate: si, dum de natura uniuersae rei disputatur, minime inconcussas inexpugnabilesque rationes afferre ualuerim, ne miremini, quin potius illud intueri, si nihilo minus quam quiuis alius consentaneas assertiones afferam; momento enim tam me qui loquor quam vos qui iudicatis homines fore atque in rebus ita sublimibus mediocrem explanationem magni cuiusdam esse onus laboris. ...

Dicendum igitur, cur rerum conditor fabricatorque geniturae omne hoc instituendum putauerit. Optimus erat, ab optimo porro inuidia longe relegata est. Itaque consequenter cuncta sui similia, prout cuiusque natura capax beatitudinis esse poterat, effici uoluit; quam quidem uoluntatem dei originem rerum certissimam si quis ponat, recte eum putare consentiam. Uolens siquidem deus bona quidem omnia prouenire, mali porro nullius, prout eorum quae nascuntur natura fert, relinqui propaginem, omne uisibile corporeumque motu importuno fluctuans neque umquam quiescens ex inordinata iactatione redegit in ordinem sciens ordinatorum fortunam confusus inordinatisque praestare. Nec uero fas erat bonitati praestanti quicquam facere nisi pulchrum eratque certum tantae diuinitati nihil eorum quae sentiuntur, hebes dumtaxat nec intellegens, esse melius intellegente, intellectum porro nisi animae non prouenire. Hac igitur reputatione intellectu in anima, porro anima in corpore locata, totum animantis mundi ambitum cum ueneranda illustratione composuit. Ex quo apparet sensibilem mundum animal intellegens esse divinae prouidentiae sanctione.

Hoc ita posito quae sequuntur expedienda sunt: ad cuius animantis similitudinem contituerit eum suos conditor. Speciali quidem nemini similem (siquidem perfectio in genere est, non in specie, proptereaque mundus imperfectae rei similis minime perfectus esset), at uero eius, in quo omnia genera et quasi quidam fontes continentur animalium intellegibilium, siquidem animalium genera mundus alter complectitur perinde ut hic nos et cetera subiecta uisui et ceteris sensibus. Ergo intellegibili substantiae praecellenti principalique naturae omnifariam quoque perfectae deus opifex gigni simile uolens sensibile animal unum et uisibile constituit, naturae suae conuenientia cuncta quae uita fruuntur intra conceptum et limitem suum continens. Nunc, utrum recte mundum unum dixerimus an plures dici oportuerit vel innumerabiles, etiam considerandum. Unum plane, quoniam iuxta exemplum formatus est, id enim quod uniuersa continet intellegibilia cum alio secundum esse non poterat; ... Ut igitur exemplari, cuius aemulationem mutuabatur, etiam in numero similis esset, idcirco neque duo nec innumerabiles mundi sed unicus a deo factus ist. ... Haec igitur aeterni dei prospicientia iuxta natium et umquam futurum deum leuem eum et aquiremum indecliuemque et a medietate undique uersum aequalem exque perfectis uniuersisque totum perfectumque progenit. Animam uero in medietate eius locauit eandemque per omnem globum aequaliter porrigi iussit, quo tectis interioribus partibus extima quoque totius corporis ambitu animae circumdarentur. Atque ita orbem teretem in orbem atque in suum ambitum uoluit conuerti et moueri solum praecipuum, qui uirtutum praestantia sufficeret conciliationi propriae nec extraordinario cuiusquam indigeret auxilio, amicumque semper sibi; ideoque summe beatum, divina potentia praeditum, genuit. Nec tamen eo quo nos ad praesens loquimur ordine ortum animae deus annuit iunioremque et posteriorem corporibus eam fecit. ...

Igitur cum pro uoluntate patris cuncta rationabilis animae substantia nasceretur, aliquanto post omne corporeum intra conceptum eius effinxit mediumque applicans mediae modulamine apto iugabat; ast illa complectens caeli ultima circumfusaque eidem exteriore complexu operiensque ambitu suo ipsaque in semet conuertens diuinam originem auspicata est indefessae sapientisque et sine intermissione uitae. Et corpus

In the above selection, Plato has very clearly made a distinction between the exemplar and its mode of existence (*aion*, *aevum*, eternity) and the *mundus sensibilis* and its mode of existence (time). The exemplar remains always the same, while the world is its moving image. But it is not completely clear whether the Ideas are atemporal (they do not grow older), or whether they simply persist through time without change or motion. Nor is it clear whether Plato is giving a temporal narrative or a structural analogy when he describes the world and time as coming into being together. Calcidius and Boethius understood him in the latter sense, Aristotle and Augustine in the former. But it was this very ambiguity which gave the *Timaeus* so much of its power. This is a work which fairly cries out for commentary and interpretation.

Calcidius

By far the most influential of the commentators on the *Timaeus* was Calcidius, who also translated the work into Latin. To the section of the *Timaeus* which we have just quoted, Calcidius added a commentary which

quidem caeli siue mundi uisibile factum, ipsa uero inuisibilis, rationis tamen et item modulaminis compos cunctis intellegibilibus praestantior a praestantissimo auctore facta. ... quam cum moueri et uiuere animaduerneret factum a se simulacrum immortalis diuinitatis genitor suus, hilaritus impendio multo magis ad exemplum eius aemulae similitudinis aliud specimen censuit excogitandum. Ut igitur haec immortalis et sempiterna, sic mundum quoque sensibilem animal immortale contituit. Sed animal quidem, id quod est generale animal, natura aeuo exaequatur; unde facto natiuoque operi cum aeuo societas congruere minime uidebatur. Quapropter imaginem eius mobilem numeroque serpentem factae a se machinae deus sociabat eam quae tempus dicitur, aeuo intacto et in singularitate perseuerante. Dies enim et noctes et menses et annos, qui ante caelestem exornationem non erant, tunc nascente mundo iussit existere; quae omnia partes sunt temporis, nosque haec cum aeuo assignamus, id est solitariae naturae, non recte partes indiuiduae rei fingimus. Dicimus enim 'fuit est erit,' ast illi esse solum competit iuxta ueram sinceramque rationem, fuisse uero et fore deinceps non competit. Haec quippe geniturae temporis proprie, motus enim sunt, unus praetereuntis, alter imminentis non aeui sed temporis; aeui quippe mansio perpetua et immutabilis. Ergo neque iunior se neque senior nec fuit nec erit nec patietur eorum aliquid quae sensibilis natura patitur, sed sunt haec omnia uices temporis imitantis aeuum. Ac de his quidem fors erit aptior deinceps disputandi locus.

Tempus uero caelo aequaeuum est, ut una orta una dissoluantur, si modo dissolui ratio fasque patietur, simul ut aeuitatis exemplo similis esset uterque mundus; archetypus quippe omni aeuo semper existens est, hic sensibilis imagoque eius is est qui per omne tempus fuerit, quippe et futurus sit." *Platonis Timaeus a Calcidio translatus commentarioque instructus*, 28A-38C, ed. Waszink, pp. 20-30.

was to have quite a bit of influence on the way the passage was understood in the twelfth century:

All things which exist are works either of God or of nature or of a human artisan imitating nature. The origin and beginning of the works of nature are seeds which, having been made, are either contained in the bowels of the earth to come forth as trees or grain, or in the fecundity of the genital organs to give rise to additional animals. The rise of all these things is in time, for nature and time are coeval. Thus the works of nature, because they have their rise from that which began in time, come and go in an endless series. But the origin and beginning of the works of God are incomprehensible. Nothing is known for sure; there is no indication of the time at which it began to be, only perhaps the cause -- and even this is scarcely understood -- why which of these things exists and for what cause, since it is certain that nothing was made by God without a cause. Therefore, just as for those things which were procreated by the law of nature the foundations are the seeds, so of those things which God brought about the foundations are causes, which are clearly known to divine providence. For God is before the institution of time and exists through eternity (for time is an imitation of eternity), and therefore the causes of all works of God are older than time; and just as God exists through eternity, thus also the causes exist through eternity. It follows that whatever was made by God should be bound by no law of time, since they are not temporal, and that which is not temporal is not so bound. And time brings about change of seasons, sickness, old age, and death. That which God has instituted is immune from all these things, and its origin is causative, not temporal. And the sensible world is a work of God. Therefore, its origin is causative, not temporal. Thus the sensible world, although it is also corporeal but nevertheless made and instituted by God, is eternal.⁷

⁷ "Omnia enim quae sunt uel dei opera sunt uel naturae uel naturam imitantis hominis artificis. Operum naturalium origo et initium semina sunt, quae facta comprehenduntur uel terrae uisceribus ad frugis arboreae cerealisue prouentum uel genitalium membrorum fecunditate conceptum animalium germen adolentium. Quorum omnium ortus in tempore; par enim et aequaeuum natae naturae ac temporis. Ita naturae opera, quia ortum habent ex eo quo esse coeperunt tempore, finem quoque et occasum intra seriem continuationemque eius sortita sunt, at uero dei operum origo et initium incomprehensibile; nulla est enim certa nota, nulla indicium temporis ex quo esse coeperunt sola, si forte, causa -- et haec ipsa uix intellegitur -- cur eorum quid quamue ob causam existat, certum est siquidem nihil a deo factum esse sine causa. Ut igitur illis quae lege naturae procreantur fundamenta sunt semina, ita eorum quae deus instituit fundamenta sunt causae, quae sunt perspicuae diuinae prouidentiae. Deus autem ante institutionem temporis et per aeuum -- simulacrum est enim tempus aei --,

Augustine

Augustine was preoccupied with the nature of time, and he discusses it many times throughout his works.⁸ To him time was the framework or container of created things, more primary even than space. It was the condition of motion, actual or potential. Two created things, angels and matter,⁹ were created capable of being moved, but capable too of not moving. If they did not move, they imitated eternity in their steadfastness, but this was not the eternity of God. Some of the angels turned away from God, and thus moved and were involved in time. But even those who did not could be said to be in time potentially and could possess temporal duration, or persistence through time. This time could not be measured, since there was no motion relative to which it might be compared.

The contrast between God's simple, instantaneous eternity and the world's (creation's) movement both in space and time, is in itself quite close to Plato. But adding the condition that time had a beginning point complicates the situation far beyond what it would be if time were perpetual and differed from the eternal only by being compound and by being in motion. We cannot speak of "before" the creation, because the world and time were created together. God is "before" the world with respect to eternity, not by extent of time. (*Conf.* 12, 29)

It was the attempt to work out the implications of Augustine's doctrine that caused many of the disagreements among later thinkers. After William of Conches,¹⁰ it became commonplace to say that if "the world is eternal" means that the duration of the world is coextensive with all of time, the proposition is true. But this really avoids the question of whether time had a beginning or was perpetual. Augustine had faced the

causae igitur operum omnium dei tempore antiquiores, et sicut deus per aeuum, sic etiam causae per aeuum. Quod sequitur, ut quicquid a deo fit, temporarium non sit, quod temporarium non sit, nulla temporis lege teneatur. Et tempus immutationem aetatis morbos senectutem occasum inuehit; his ergo omnibus quod a deo instituitur immune est origo eius causativa est, non temporaria. Et mundus sensibilis opus dei; origo igitur eius causatiua, non temporaria. Sic mundus sensibilis, licet et corporeus, a deo tamen factus atque institutus, aeternus est." Calcidius, *In Timaeum Comm.*, 23, ed. cit., pp. 73-74.

⁸ See Robert J. O'Connell, S.J., *St. Augustine's Confessions. The Odyssey of Soul* (Cambridge, Mass., 1969), pp. 138-44 and J. Guitton, *Le temps et l'éternité chez Plotin et St. Augustin* (Paris, 1933).

⁹ Augustine, *De civitate Dei* 12, 17 and *Confessiones* 12, 12.

¹⁰ William of Conches, *Glosae super Platonem*, ed. E. Jeaneau, pp. 172-73 and *In consolationem commentarii*, ed. J. Parent, *La doctrine de la création dans l'école de Chartres*, pp. 133-35.

matter and held that time had a beginning, but William of Conches was vague, probably intentionally.¹¹ Augustine also suggested a line of thought which was picked up by Robert Grosseteste later, namely that perpetuity is a conceptual error, and that nothing created can be perpetual.¹² It either has a beginning (i.e., creation) or it is simple and atemporal (i.e., God). He never answers directly the Platonic position which he quotes and dismisses (*De civitate Dei* 10, 31), exemplified by the footprint in the dust from eternity, which implies that something may be dependent on God for its existence and nevertheless without a temporal beginning. (Aquinas makes much of Augustine's lack of a rebuttal.¹³) When he says, as he does several times, that no creature can be coeternal with God, he clearly means that no creature can share in God's atemporal simplicity, but his words were, more often than not, taken to mean that no creature could share infinite duration with God.

A major problem in this tradition is the relationship of the eternal to the temporal. This, it seems to me, is central to the problem of a beginningless created world, but it was seldom addressed. Even so powerful a thinker as Anselm of Canterbury added little clarity to Augustine's words. The first serious attempts of which I am aware to deal with the problem were William of Durham's questions on eternity of the late 1220s. He was followed in this endeavor by a number of later authors, the most successful of whom were Alexander of Hales (about 1236), Eustace of Arras (about 1269-70) and Theodoric of Freiberg in the early fourteenth century.¹⁴

Augustine was not a systematic philosopher; he was a rhetorician, well-read in handbook philosophy, who became a Christian. While there is little philosophical method in Augustine's works, there is a good deal of philosophical content. He often had brilliant intuitions, and he possessed a remarkable ability to present rhetorical formulations of philosophical positions, but he seldom, if ever, carries on a rigorous, technical philosophical inquiry. Consequently we have from him much information concerning ancient arguments for the eternity of the world, some assertions about the nature of time and creation and their relationship to God, and some insights into the nature of divine eternity, but no systematic

¹¹ See Richard C. Dales, "Discussions of the Eternity of the World During the First Half of the Twelfth Century," *Speculum* 57 (1982) 495-508.

¹² See Grosseteste, *De finitate motus et temporis*, ed. Dales, pp. 254-56 and R. C. Dales, "Robert Grosseteste's Place in Medieval Discussions of the Eternity of the World," *Speculum* 61 (1986) 558-59.

¹³ Aquinas, *De aeternitate mundi*, ed. Parma, 16, 319b.

¹⁴ See R. C. Dales, "Time and Eternity in the Thirteenth Century," *Journal of the History of Ideas* 50 (1988) 27-45.

presentation of any of these doctrines. In spite of this, he was the single greatest influence and source of ideas, doctrines, insights and arguments on the subject of the eternity of the world for the highly skilled and technically proficient Latin philosophers of the scholastic period.

The most important of the relevant ideas and doctrines were the following: that the world was beginningless, but created (*De civ. Dei* 10, 31); that "before" has different meanings, and that God is before the world by eternity, not time (*Conf.* 12, 29); that a temporal creation does not require a change in God's will (*Conf.* 11, 10, *De civ. Dei* 12, 15, *Liber* 83 qq. 64); the question of whether God could have made the world before he did, and the suggestion that the non-being of the world is not in time (*De civ. Dei* 12,13); the presentness of God's eternal knowledge (*De civ. Dei* 11, 21); the false imagining of infinite stretches of space and time (*De civ. Dei* 11, 5); that the world was created with time, not in time (*De civ. Dei* 11, 16, *Conf.* 11, 13); that that which exists for all times exists always (*De civ. Dei* 12, 16); that God's goodness is never inactive (*De civ. Dei* 12, 18); the eternity or temporality of the Lord-servant relationship (*De civ. Dei* 12, 16); that the infinite series of numbers is knowable to God (*De civ. Dei* 12,20); and that some aspects of time are subjective (*Conf.* 11, 18-20).¹⁵

Boethius

Boethius was the last Latin writer who commanded the Greek philosophical literature of late antiquity, and it was he who passed along to the Middle Ages the most fully developed and sophisticated views on time and eternity. Three works in particular are of importance in this connection. First is the *De hebdomadibus*, in which he emphasized divine simplicity by distinguishing between *esse* and *id quod est* and holding that only in God were these the same. Second is his *Quomodo trinitas unus deus*, in which he contrasted the "nows" of time and eternity: "Our 'now,' as if running, makes time and the sempiternal, but the divine 'now,' standing

¹⁵ The possibility of the subjectivity of time, which has dominated most modern discussions of Augustine's views on time (see especially Ludwig Wittgenstein, *Philosophical Investigations* I, 89 and *The Blue and Brown Books*; Bertrand Russell, *A History of Western Philosophy*, p. 374; and Robert J. O'Connell, SJ, *St. Augustine's Confessions*, pp. 138-44), was virtually ignored in the Middle Ages. Augustine's teaching on the subject has recently been re-examined by James McEvoy, ("St. Augustine's Account of Time and Wittgenstein's Criticism," *Review of Metaphysics* 38 [1984] 547-77), who shows quite convincingly that Augustine did not mean that time was *only* subjective. In any case, this particular aspect of Augustine's doctrine on time has played little part in medieval discussions of the eternity of the world.

fast, not moving, staying the same, makes eternity"; and discussed the problem of the Lord-servant relation, that is, if the eternal God is Lord, then either that of which he is Lord is eternal or some change occurred in God. But most important is the *De consolazione philosophiae*. Book 3, m. 9 is a magnificent poetic summary of the cosmology of the *Timaueus*. Book 4, pr. 6 contains the analogy of time and eternity to the circumference and center of a circle. And Book 5, pr. 6 contains probably the most important and influential single statement on the relation of time to eternity in the entire literature:

Since therefore, as has been shown before, everything which is known is known not according to its own nature but according to that of the knower, let us now investigate, insofar as it is not blasphemous, what the status of the divine substance is, so that we might be able to know what the character of its knowledge is. That God is eternal, then, is the common judgment of all who live by reason. Therefore, let us consider what eternity is, for this will reveal to us equally the divine nature and divine knowledge. Eternity, then, is the complete possession all at once of illimitable life; this will become clearer by comparison to temporal things. For whatever lives in time proceeds as something present from the past into the future, and there is nothing constituted in time that can embrace the whole extent of its life all at once. Indeed, on the contrary, it does not yet grasp tomorrow while it has already lost yesterday; and even today's life is only lived in a fleeting and transitory moment. Therefore, whatever is subject to the condition of time -- even such as Aristotle thought the world to be, that it did not ever begin to be and will never end and whose life is stretched out with an infinity of time -- is nevertheless not such a thing as the eternal is rightly considered to be. For it does not grasp and include the whole of infinite life all at once; it does not yet possess the future which is yet to come. Therefore, that which grasps and possesses the whole fulness of illimitable life all at once, and is such that nothing future is absent from it and nothing past has flowed away, that thing is rightly judged to be eternal, and of this it is necessary both that being in full possession of itself it be always present to itself and that it have the infinity of moving time present to itself. Therefore, when certain people heard that the world seemed to Plato neither to have had a beginning of time nor was going to have an end, they wrongly supposed that the created world is in this manner coeternal with its founder. For it is one thing to lead an interminable life, which Plato attributed to the world, and another thing to embrace the whole of interminable life as if equally present, which is clearly the property of the divine mind. Nor ought God to seem older than created things by a quantity of time, but rather by the property of his simple nature.

For that infinite motion of temporal things imitates the present state of the immobile life. And since it cannot express and be equal to it, it descends from immobility to motion; and from the simplicity of the present, it declines into the infinite extent of past and future. And since it cannot possess the whole fulness of its life instantaneously, it seems to imitate to some extent that which it cannot express fully, in such a way that it never ceases to exist, binding itself to a certain kind of present of this tiny and fleeting moment, which, since it bears a certain similarity to that abiding present, gives to all things it touches a kind of appearance of existence. But since it is not able to remain unchanging, it hurries along the infinite road of time so that it might continue by movement that life whose fulness it could not embrace by remaining still. Therefore, if we wish to put the correct names on things, let us, following Plato, say that God is indeed eternal, but the world is perpetual.¹⁶

¹⁶ "Quoniam igitur, uti paulo ante monstratum est, omne, quod scitur, non ex sua, sed ex comprehendentium natura cognoscitur, intueamur nunc, quantum fas est, quis sit divinae substantiae status, ut quaenam etiam scientia eius sit, possimus agnoscere. Deum igitur aeternum esse cunctorum ratione degentium commune iudicium est. Quid sit igitur aeternitas, consideremus; haec enim nobis naturam pariter divinam scientiamque patefaciet. Aeternitas igitur est interminabilis vitae tota simul et perfecta possessio, quod ex collatione temporalium clarius liquet. Nam quicquid vivit in tempore, id praesens a praeteritis in futura procedit nihilque est in tempore constitutum, quod totum vitae suae spatium pariter possit amplecti, sed crastinum quidem nondum apprehendit, hesternum vero iam perdidit; in hodierna quoque vita non amplius vivitis quam in illo mobili transitorioque momento. Quod igitur temporis patitur conditionem, licet illud, sicuti de mundo censuit Aristoteles, nec coeperit umquam esse nec desinat vitaeque eius cum temporis infinitate tendatur, nondum tamen tale est, ut aeternum esse iure credatur. Non enim totum simul infinitae licet vitae spatium comprehendit atque complectitur, sed futura nondum, transacta iam non habet. Quod igitur interminabilis vitae plenitudinem totam pariter comprehendit ac possidet, cui neque futuri quocquam absit nec praeteriti fluxerit, id aeternum esse iure perhibetur idque necesse est et sui compos praesens sibi semper assistere et infinitatem mobilis temporis habere praesentem.

Unde non recte quidam, qui, cum audiunt visum Platoni mundum hunc nec habuisse initium temporis nec habiturum esse defectum, hoc modo conditori conditum mundum fieri coaeternum putant. Aliud est enim per interminabilem duci vitam, quod mundo Plato tribuit, aliud interminabilis vitae totam pariter complexum esse praesentiam, quod divinae mentis proprium esse manifestum est. Neque deus conditis rebus antiquior videri debet temporis quantitate, sed simplicis potius proprietate naturae. Hunc enim vitae immobilis praesentiarum statum infinitus ille temporalium rerum motus imitatur, cumque cum effingere atque aequare non possit, ex immobilitate deficit in motum, ex simplicitate praesentiae decrescit in infinitam futuri ac praeteriti quantitatem et, cum totam pariter vitae suae plenitudinem nequeat possidere, hoc ipso, quod aliquo modo numquam esse desinit, illud, quod implere atque exprimere non potest, aliquatenus videtur aemulari alligans se ad qualemcumque praesentiam huius exigui volucrisque momenti, quae, quoniam manentis illius praesentiae quandam gestat imaginem,

Simplicity, simultaneity, wholeness, unchangeability, and illimitability are the principal characteristics of the eternal. Although the contrast between the "nows" of time and eternity is not completely clear, when this passage is read in the light of *Quomodo trinitas* 4 it seems that they are not the same sort of thing, one moving, the other standing still, but that they are essentially different. The "now" of time tries to imitate the "now" of eternity by simulating presentness, a thing it can only do by moving. Still, there is room for legitimate doubt, and in fact Boethius was variously understood by different authors in later centuries.

Boethius, like Augustine, emphasized this presentness of God's mode of existence; not only is his being complete all at once (i.e., atemporally), but his manner of knowledge is such that the past and future of time are also simultaneous to his knowledge.

Boethius also notes the unlimitedness of the divine being (eternity) but sets it off from infinite temporal extension by virtue of its simplicity. He ascribes to Aristotle the view that the world is perpetual, while crediting Plato with the distinction between simple eternity and infinite temporal extension, and he refers to God and created things without showing any sign of recognizing a special problem of beginningless creation. He emphasized that God was not older than the world by some amount of time, but by virtue of the simplicity of his nature, and he explicitly denied that a beginningless world would be coeternal with God.

But many confusions arose in the tradition, enabling later commentators to interpret him otherwise. First was Calcidius's translation of Plato's *aion* by the Latin *aevum*. Next was the shift in the meaning of *aevum* to indicate a mode of existence intermediate between eternity and time, a stage occupied by angels and incorruptible substances, which had a beginning but would not have an end. The adjective *perpetuus* was applied to things occupying this stage, and so Boethius came to be understood as holding that time and the world had a beginning, and that this was also Plato's meaning. And since Aristotle was said to have denied that the world had had a beginning "ever", i.e., in time, but rather with time, a view which Augustine had also expressed, he too was sometimes credited with having granted a beginning to the world. But Boethius, like

quibuscumque contigerit, id praestat, ut esse videantur. Quoniam vero manere non potuit, infinitum temporis iter arripuit eoque modo factum est, ut continuaret eundo vitam, cuius plenitudinem complecti non valuit permanendo. Itaque si digna rebus nomina velimus imponere, Platonem sequentes deum quidem aeternum, mundum vero dicamus esse perpetuum." Boethius, *De consolazione philosophiae* 5, pr. 6. I have borrowed portions of my translation from that of Eleonore Stump and Norman Kretzmann, "Eternity," *The Journal of Philosophy* 78 (1981) 429-58.

Augustine, had clearly said that a beginningless world would not be coeternal with God. Still, somewhat more than half the authors who discussed the eternity of the world understood both men to have taught that it would be and maintained that if the world were without a beginning, it would be coeternal with God.

The progressive development in antiquity of the concept of eternity as being simple and nontemporal introduced a serious ambiguity into medieval discussions of the eternity of the world. Plato had confused matters by his vague and apparently contradictory remarks on whether time had a beginning point or whether it was infinitely extended and differed from eternity only by virtue of movement and change, not by having a "beginning" in the sense of a temporal starting point, but only a superior principle upon which it depended. As eternity was conceived by Augustine and defined by Boethius, it clearly could not be a condition of the world, which unarguably exists in time. But this leaves unanswered the question of whether the world is beginningless, although both Augustine and Boethius held that a beginningless world would not be coeternal with God. Augustine unequivocally says that the world had a beginning, but not a beginning in time; time and the world were created together, so there was no *time before* the world was. And yet there was a zero point from which it all began. If "eternal" means coterminous with the whole of time, then in a sense the world is eternal, but not beginningless. But the phrase *ab aeterno* in Latin nearly always means "of infinite temporal duration in the past," and this inconsistency in language bred inconsistency in thought.

These then were the principal ancient sources for the question of the eternity of the world available to Latin Europe. Many other ancient writers became known during the course of time. We shall consider them as they became available to the Latins.

CHAPTER TWO

ERIUGENA AND HIS FOLLOWERS

The problem of the eternity of the world seems to have been largely forgotten during the formative period of Latin Christianity from the seventh to the ninth centuries. The traditional Christian version of the world's beginning was frequently asserted, but the question was not argued, nor was there any attempt to reconcile Genesis with the philosophers. When the question was revived by John Scotus Eriugena in the mid-ninth century, it was considered in a form quite different from the one it had taken among the Latin Fathers.

Eriugena devoted much of book 3 of his *Periphyseon* to a discussion of how things could be both eternal and made. Augustine had been concerned to show that the world had an absolute beginning, along with time, contrary to those philosophers who had held that it was without a beginning. Eriugena was deeply influenced by Augustine, as well as Boethius and Calcidius, but his knowledge of the Greek Fathers Gregory of Nyssa, ps.-Dionysius, and Maximus led him to consider the question from a different point of view.¹ He did not deny that the present state of the universe had a beginning, but he insisted that there was nevertheless a sense in which the world was eternal, namely in its eternal causes, so that the world could rightly be considered to be both eternal and to be made from absolutely nothing. He was fully aware that this was a difficult and apparently contradictory opinion, and he employed the same rhetorical strategy that Augustine had used in his *Confessions*, puzzling over seemingly insuperable obstacles, confessing and rejecting former errors, gathering his resources for a final assault, and finally achieving his goal.

There are four main elements in Eriugena's lengthy, redundant, and tentative argument. First and most important is his assertion that "[w]e conclude about the primordial causes of all things that they were made by the Father eternally, just once and all at once in his inborn Word, i.e.,

¹ On Eriugena's concept of time, see H. Bett, *Johannes Scotus Eriugena: A Study in Medieval Philosophy* (Cambridge, Eng., 1925), pp. 36-41; and M. Cappuyns, "Le plus ancien commentaire des *Opuscula Sacra* et son origine," *RTAM* 3 (1931) 259 and *Jean Scot Erigène, sa vie, son oeuvre, sa pensée* (Louvain, 1933), 344-47.

his Wisdom."² But these are not coeternal with him, since a cause precedes its effect, just as the understanding of an artisan precedes the understanding of his art. "The art itself precedes all things which subsist in it, through it, and by it, for it is their cause. From this it is established that all things are eternal in the Wisdom of the Father, but not coeternal with him. ... Therefore it is clear that the universe of creatures is eternal in the Word of God."³ The student then illustrates this by the examples of all numbers subsisting causally in the simplicity of the monad and all radii subsisting causally in the simplicity of the center, "and although they flow forth from them in many forms, nevertheless they do not cease to be in them according to a uniform eternal law [*ratio*] and unchangeable state."⁴

His second point is to reconcile the simplicity of God with his manifold causality. "Whatever is substantially in God the Word," he says,

since it is not anything besides the Word itself, is necessarily eternal. And for this reason, it is concluded that both the multiple and the most principal reason of the entire established universe is the very Word itself. ... Therefore, since the Son of God is the Word and Reason and Cause, it is not incongruous that the Reason and Cause, the simple and in itself infinitely multiple creator of the established universe, is the Word of God. And thus we come back to the assertion that the Word of God is simple, and in itself the infinitely manifold creator of the established universe, and the Reason and the Cause -- simple, because the universe of all things is one undivided and inseparable thing in him, ... manifold, since it is diffused through all things to infinity, and this diffusion itself is the subsistence of all things.⁵

² *Periphyseon* 3, 5 (PL 122, 635): "Confecum est enim inter nos de primordialibus rerum omnium causis, quae a Patre in verbo suo ingenito, hoc est, in sua sapientia et simul et semel sunt aeternaliter facta."

³ *Ibid.* 3, 5-7 (635-39): "Ipsa vero ars praecedat omnia, quae in ea, et per eam, et ab ea subsistunt; eorum namque causa est. Hinc conficitur, in Patris sapientia omnia aeterna esse, non tamen ei coaeterna. ... Totius ergo creaturae universitatem aeternam esse in Verbo Dei manifestum est."

⁴ *Ibid.* 3, 8 (639-40): "Et dum ab eis multipliciter profluunt, uniformi tamen ratione aeterno atque incommutabili statu in eis esse non desinunt."

⁵ *Ibid.* 3, 9 (642): "[Q]uoniam non aliud praeter ipsum Verbum est, aeternum esse necesse est. Ac per hoc conficitur, et ipsum Verbum, et multiplicem totius universitatis conditae principalissimamque rationem id ipsum esse. ... Quoniam igitur Dei Filius et verbum, et ratio, et causa est, non incongruum dicere, simplex et in se infinite multiplex creatrix universitatis conditae ratio et causa Dei Verbum est. Ac sic recurreret, Dei verbum est simplex, et in se infinite multiplex creatrix universitatis conditae, et ratio, et causa. Simplex quidem, quia rerum omnium universitas in ipso unum individuum et inseparabile est. ... Multiplex vero non inmerito intelligitur esse, quoniam per omnia in

The third element in Eriugena's presentation is his investigation of the meaning of the phrase "from nothing," and the further question of how something made from nothing can nevertheless be eternal. After having rejected the contention of the philosophers that formless matter is coeternal with God and that God used it in making this universe, Eriugena argues that God created matter, just as he did everything else, "since there is nothing outside him." Neither had he found something within himself, "something coessential with him, from which he made in his Wisdom whatever he wished to be made." He then proceeds to give as coherent an account of his view as he can.

Hence place is not assigned to "nothing," neither outside God nor within him. And nevertheless he is not vainly believed to have made all things from nothing. And nothing other should be understood by the statement: "All things were created from nothing" than that there was a time when they did not exist. Therefore we do not speak illogically when we say: They always existed; they did not always exist; and: There was not a time when they did not exist; and there was a time when they did not exist. For they always existed causally in the Word of God, by a force and power beyond all places and times, beyond all locally and temporally made generation, beyond all forms and species known to sense and intellect, beyond all quantity and quality and other accidents through which the subsistence of each and every creature is understood to exist, although what it is is not understood.

And they did not always exist, for before they flowed forth by generation into forms and species, places and times, and all the accidents which inhere in their eternal substance stationed incommunicably in the Word of God, they did not exist in generation, nor did they exist locally or temporally or in their own forms and species to which accidents inhere. Therefore it is not irrationally predicated of them that there was not a time when they did not exist, for eternity is infinite.

And there was a time when they did not exist, for they began temporally through generation to be what they were not, that is, to appear in forms and species. Hence, if someone intently examines the nature of things, there will be found no creature subject to sense or intellect about which it cannot be truly said: "It always was and is and will be"; and: "It did not always exist, nor is it, nor will it be." To be sure, that first constitution in the Wisdom of God through the primordial causes unchangeably was and is and will be. But because that constitution is known to God alone and exceeds every sense or intellect in all creation, and what it is

cannot be known to any intellect yet created, it begins temporally through generation to receive quantities and qualities by which, as if clothed in garments, it can reveal that it is but not what it is. Therefore it begins to exist in a certain way not insofar as it subsists in the primordial causes, but insofar as it begins to become apparent from temporal causes. I call temporal causes the quantities and qualities and other things which are accidental to substances temporally through generation. And about these, I say that there was a time when they did not exist, for they were not always apparent in their accidents. And for the same reason, they are now said to be; and they exist and will truly always exist insofar as they subsist in their causes. ... And so, after having considered these arguments, who but a very slow or very contentious person would not concede that all the things which are from God are at once eternal and made?⁶

⁶ *Ibid.* 3, 15 (665-66): "Proinde non datur locus nihilo, nec extra, nec intra Deum; et tamen de nihilo omnia fecisse, non in vanum creditur. Ac per hoc nil aliud datur intelligi, dum audimus, omnia de nihilo creari, nisi quia erat, quando non erant. Ideoque non incongrue dicimus, semper erant, semper non erant, et non erat quando non erant, et quando non erant, erat. Siquidem semper erant in Verbo Dei causaliter, vi et potestate ultra omnia loca et tempora, ultra omnem generationem localiter et temporaliter factam, ultra omnem formam ac speciem sensu et intellectu cognitam, ultra omnem qualitatem et quantitatem, ceteraque accidentia, per quae substantia uniuscujusque creaturae intelligitur esse, non autem, quid sit. Et semper non erant; priusquam enim per generationem in formas et species, loca et tempora, inque omnia accidentia, quae aeternae eorum substantiae in Verbo Dei incommunicabiliter substitutae accidunt, profluerent, non erant in generatione, nec erant localiter, nec temporaliter, nec in propriis formis speciebusque, quibus accidentia contingunt. Ac per hoc non irrationabiliter de eis praedicatur, non erat, quando non erant; temporaliter enim inchoaverunt per generationem esse quod non erant, quia semper in Verbo Dei subsistunt, in quo nec esse incipiunt; infinita est enim aeternitas. Et erat quando non erant; temporaliter enim inchoaverunt per generationem esse quod non erant, hoc est, in formis et speciebus apparere. Proinde se quis naturam rerum intentus perspexerit, nulla creatura sensibus seu intellectibus succumbens reperietur, de qua veraciter dici non possit, semper erat, et est, et erit, et semper non erat, nec est, nec erit. Siquidem incommutabiliter et erat, et est, et erit ipsa prima constitutio in sapientia Dei per primordiales causas; sed quia ipsa constitutio soli Deo cognita est, omnemque sensum et intellectum totius creaturae superat, a nulloque adhuc intellectu creato cognosci potest quid sit, incipit per generationem temporaliter accipere quantitates et qualitates, in quibus veluti quibusdam vesti entis operata potest manifestare, quia est, non autem quid sit. Inchoat ergo quodammodo esse, non in quantum in causis primordialibus subsistit, sed in quantum ex causis temporalibus incipit apparere. Causas autem temporales dico qualitates et quantitates et cetera, quae substantiis accidunt temporaliter per generationem. Et dico de iis dicitur, erat quando non erant; non enim semper in accidentibus apparebant. Eadem ratione et nunc dicuntur esse, et sunt, et vere ac semper futura sunt, in quantum in suis causis subsistunt. ... His itaque rationibus consideratis, quis nisi nimium tardus aut nimium contentiosus non concedant, omnia, quae ex Deo sunt, et aeterna simul esse et facta?"

And finally, there is Eriugena's investigation of the relation between time and eternity. He stated unequivocally that God was not temporally prior to the sensible universe, but only causally prior to it. God did not precede the universe with respect to time, because if he did the universe would be a temporal accident of his according to time, and God, being simple, cannot support accidents. "Therefore, if God precedes the universe which he established only by virtue of the fact that he is its cause, ... then the universe is eternal in its cause. ... Therefore it is clear that the universe of creatures is eternal in the Word of God."⁷

But in his consideration of the meaning of "from nothing," he had frequently used the expression *erat quando non erant*, which I have translated as: "there was a time when they were not," to describe temporal things. On the face of it, this seems to imply that he considered that there was a space of time prior to the creation of the world when God existed but creatures did not; and although he may have lapsed once or twice into this sort of error, a close examination of his words indicates that his meaning here is consistent with his earlier remarks. Within the temporal order, everything but the simple nature of the universe comes into being temporally and passes out of being temporally, and so there is, within the temporal order, a time when they were not. But even when they are not, they have subsistent reality in their primordial causes, which persist through time as well as being eternal in the proper sense.

Although we still do not have a connected account of Eriugena's influence through the end of the twelfth century, it is by now evident that it was considerable, both directly and through the simplified paraphrase attributed to Honorius of Autun.⁸ One very interesting treatment of time and eternity is found in an anonymous commentary on the *De consolatione philosophiae*,⁹ first thought by its editor, E. T. Silk, to be by Eriugena but now generally conceded to have been compiled from various sources by an unknown author of the twelfth century.¹⁰ In a subsequent

⁷ *Ibid.* 3, 8 (639): "Si igitur nulla alia ratione Deus universitatem a se conditam praecedit, praeter illam solam, qua ipsa causa est. ... Totius ergo creaturae universitatem aeternam esse in Verbo Dei manifestum est."

⁸ See M.-T. d'Alverny, "Le cosmos symbolique de XIIe siècle," *AHDLMA* 20 (1953), 31-81.

⁹ E. T. Silk, ed., *Saeculi noni auctoris in Boethii consolationem philosophiae commentarius* (Rome, 1935). Professor Silk details the similarities between this work and Eriugena's thought in the introduction, pp. xxvii-l.

¹⁰ See Pierre Courcelle, "Etude critique sur les commentaires de la *Consolation* de Boèce (IXe-XVe siècles)," *AHDLMA* 14 (1939), 5-140, on pp. 36 and 54.

study,¹¹ Silk conceded that Eriugena was not the author, but argued persuasively that the commentary was composed in the ninth century and that Adalbold of Utrecht had borrowed from it. Difficulties can be raised about either dating, but I tend to agree with Silk.

Although all known manuscripts of this highly eclectic work break off before commenting on the crucial text of book 5, prose 6, the author fortunately felt obliged to insert some comments on time and eternity at book 3, meter 9: *O qui perpetua mundum ratione gubernas*. "Whoever has written about the constitution of the world," he writes, "whether they were Catholic or gentile, has asserted that there are two worlds, one called the archetype, the other the sensible."¹² He equates the archetypal world with the Divine Mind, "in which, before God created this sensible world corporeally, he saw as already present, as it were, ... whatever things are made or are yet going to be."¹³ God used this image, which Plato called Idea, St. John the Evangelist called life itself, Boethius called God's Providence, and which is incorporeal, as the model according to which the sensible world was made. The author then restates Calcidius's doctrine that every work is either a work of God, of nature, or of a craftsman imitating nature. Among the works of God he includes νοῦς (i.e., the Divine Mind), the world, the world soul, "and that which was formerly called chaos, namely, the confusion of the elements which is called ὕλη."¹⁴ The author investigates its eternity and begins by making a threefold division of all things into eternal, perpetual, and temporal. Among the eternal things, which he distinguishes not by "presentness," but by lacking both a beginning and an end, are "God the Father (i.e., το ἄγαθόν) and νοῦς (i.e., the Divine Mind), and that matter from which the world was made."¹⁵ Perpetual things differ from eternal in that they had a beginning but will not have an end. Since no work of God is subject to corruption, but all other works are, the world as a whole is not corruptible. Even its four elements are perpetual and endure, although they assume many forms. He concludes that "according to the philosophers, the world is eternal with respect to its matter, perpetual with respect to its form."¹⁶

This is certainly a highly original treatment, although elements from Eriugena and Calcidius are evident. The author has redefined the cate-

¹¹ E. T. Silk, "Pseudo-Johannes Scotus, Adalbold of Utrecht, and the Early Commentators on Boethius," *Mediaeval and Renaissance Studies* 3 (1954), 1-40.

¹² *Ed. cit.*, p. 156.

¹³ *Loc. cit.*

¹⁴ *Ibid.*, p. 157.

¹⁵ *Ibid.*, p. 158.

¹⁶ *Loc. cit.*

gories of eternal and perpetual, as he found them in Boethius, and has added a third, the temporal. In fact, they are all temporal according to a strict interpretation of either Plato or Boethius and are distinguished only by the length of their temporal duration. Thus the Christian doctrine of an absolute beginning is saved without any ambiguity; of Plato's three principles, the Demiurge is identified with God, the Ideas become a work of God, and matter, although remaining eternal as Plato had it, is now created by God. Since the world was made in time, it cannot be eternal, but since it is a work of God and therefore not subject to corruption, it will be perpetual, that is, it will never end. This redefinition of perpetual would have a long history and would pervert the Latins' understanding of Boethius far into the thirteenth century.

Later, in a gloss on the words *tempus ab aevo* of the same poem, our author (or compiler) includes some material borrowed (though altered) largely from *De consolazione* 4, prose 6, and from Eriugena's *Periphyseon* 3.1, which also appears in Adalbold of Utrecht, and which gives a much more truly Platonic treatment of time and eternity. In the temporal order, he says, things are similar to eternal things to whose likeness they were made, but they differ from them in that eternal things endure by staying still, while temporal things endure by flowing. Eternity has the same relationship to time that the center has to a circle. Both the center and eternity are indivisible and immobile. "Eternity is nothing other than the contraction of all time held as if present in the glance which sees all things. For all time is drawn forth from eternity and contracted into it."¹⁷

Very little is known today about the doctrine of Bernard of Chartres, but John of Salisbury calls him "the most perfect Platonist of our times," quotes several lines of his philosophical poetry, and summarizes his views on eternity. According to John, Bernard distinguished between God's eternity and that of the Ideas. Since the Ideas are subsequent in nature to God, they cannot be called coeternal with him, even though they are eternal. This is completely consistent with Eriugena's treatment and could have been derived from it. But John does not tell us what Bernard taught about the eternity of the sensible world. The sentence just cited ends as follows: "... admittens eternitatem providentie, in qua omnia semel et simul fecit, statuens apud se universa que futura erant in tempore aut mansura in eternitate."¹⁸ Without a clear philosophical context into which to fit these words, we cannot be sure what they mean. Speculation on Bernard's doctrine in the absence of further texts is not likely to be fruitful.

¹⁷ *Ibid.*, pp. 174-76.

¹⁸ *Metalogicon* 4.35, ed. C. C. J. Webb (Oxford, 1929), pp. 204-07.

Hugh of St. Victor is seldom thought of in connection with radical doctrines, but he was aware of Eriugena's *Periphyseon* and at least part of the teaching contained in the anonymous commentary on the *De consolatione philosophiae*, and although he did not accept unchanged the thought of either, he was nevertheless significantly influenced by both. In book 1, chapter 6, of his *Didascalicon*¹⁹ he repeats Anonymous's division of "the things which are" into eternal, perpetual, and temporal, although he changes the criteria for inclusion in each class. Borrowing from Boethius,²⁰ Hugh says that among the eternal things, which have neither beginning nor end, is God alone, whose very existence (*esse*) is identical with "that which he is" (*id quod est*). Hugh does not use the Augustinian-Boethian criterion of simultaneity. In the second category are the things in which *esse* and *id quod est* are separate, that is, they have come into being from a principle distinct from themselves. He calls this category "nature" and divides it into two parts: primarily and most generally it refers to those things which, "acquiring existence from their primordial causes, come forth into act not as if so moved by anything itself in motion, but solely from the choice of the divine will, and once in existence remain immutable, free from all corruption or change."²¹ (These things, he says, the Greeks call *ousiai*.)²² And secondly it refers to the bodies of the superlunary world, which, from their knowing no change, have also been called divine; these things have a beginning but will have no end. "It was of this category that it was said: 'Nothing in the world perishes, because no essence suffers destruction,' for not the essences but the forms of things pass away ... but the being of things suffers no loss." Of this category too, it is said: "Nothing comes from nothing and into nothingness can nothing revert," because "all of nature has both a primordial cause and a perpetual subsistence." Things in the third category are brought into being neither by their own power nor directly by God's will, but as works of nature; they had a beginning and will have an end. Of this category it is said: "All things which have arisen fall, and all which have grown decline," and "that which before was nothing returns to it again." "For just as each work of nature flows temporarily into act out of its hidden cause, so when its act has temporarily been destroyed, that work will return again to the place from which it came."²³

¹⁹ *Didascalicon de studio legendi*, ed. Charles Henry Buttmer (Washington, D. C., 1939), pp. 12-14.

²⁰ Cf. Boethius *De hebdomadibus* (PL 64, 1311) and *De consolatione* 4, pr. 6.17.

²¹ *Ed. cit.*, p. 13.

²² Cf. Augustine, *De trinitate* 5, 8.

²³ *Ed. cit.*, p. 14. This section is quite similar to *Periphyseon* 3, 9 (PL 122, 648-49).

Hugh clearly knew Eriugena's work, and, although he altered it in some respects (especially in regard to the divine ideas),²⁴ he also borrowed the overall scheme and accepted that the true being of each thing is in its primordial cause in the second division of being. Therefore, while individual works of nature come into being and pass away in time, insofar as they *are*, they are perpetual in their cause.

Although elements of Eriugena's thought were widely diffused, the integrity of his presentation did not survive the twelfth century. Even Hugh of St. Victor's use of his doctrine was usually overlooked by later thinkers, who seized upon different aspects of Hugh's teaching to cite in discussions of the eternity of the world. Ironically, it was the definition of the perpetual as having a beginning but not an end, transmitted but probably not devised by the anonymous commentator on *De consolatione*, which was to be the most lasting and influential of the legacies of Eriugena and his followers.

²⁴ See Jerome Taylor, ed. and tr., *The Didascalicon of Hugh of St. Victor* (New York, 1961), pp. 186-87, note 42 to book 1.

CHAPTER THREE

THE SECOND QUARTER OF THE TWELFTH CENTURY

The second quarter of the twelfth century was a brilliant period in the intellectual history of Europe. Among the variety of its literary productions was a renewed interest in and original treatment of the *Timaeus* and the *De consolazione philosophiae*, as well as the writings of Augustine. The writers we have considered thus far all admit at least one sense in which the world may be considered eternal, but they did not mean that "this world as it is" is eternal, at least not in the beginningless past. Other thinkers of the twelfth century did consider that question, however. Their concern with the text of the *Timaeus* led them to concentrate their attention on the *mundus sensibilis* and to ask whether the temporal mode of being proper to it has a historical beginning as well as a principle of existence. Their interests were not so much in the archetypal world as in the perceived world; and although their growing sophistication enabled them to grasp the meaning of Boethius's definition of the eternal (something which would be difficult even for many thirteenth-century scholars), their efforts were mainly directed to investigating the temporal.

Discussions of the eternity of the world during the second quarter of the twelfth century were nearly always based on Plato's *Timaeus*. This work was, of course, a myth, a likely story, as Timaeus himself is made to say. This was a type of philosophical discourse with which twelfth-century thinkers were quite familiar.¹ It presented truths under a covering of fiction, and the task of philosophical criticism was to demythologize such accounts and discover the truths they concealed. In William of Conches we find a determined attempt to reconcile the *Timaeus* with Christian teaching on the beginning of the world. He discussed the problem in two separate works, his glosses on the *Timaeus* and his glosses on Boethius's *De consolazione*. He had read both these texts closely, and he was intimately familiar with Augustine's *Confessions*, so he was fully aware of the problem he was facing. He found a solution hinted at in

¹ See, for example, M.-D. Chenu, "Involucrum: Le mythe selon les théologiens médiévaux," *AHDLM* 22 (1955), 75-79; Brian Stock, *Myth and Science in the Twelfth Century* (Princeton, 1972), 11-62; and Peter Dronke, *Fabula* (Leiden, 1975).

both the text of the *Timaeus* itself and in the works of Augustine, and he tried valiantly to devise a formula that would save both the Platonic and the Christian accounts.

In his glosses on *Timaeus* 27D he investigates the question carefully. First he divides all things into those which lack generation and always are, and those which have generation and do not always exist. "In order that we might better understand what generation is," he continues

let us speak about what has generation, what lacks generation, what always is, and what does not always exist. Generation, as Boethius says in his *Commentary on the Categories*, is an entry into substance, i.e., a beginning of existence. Therefore, to have generation is to have a beginning of existence; but to lack generation is to lack a beginning of existence. "Always to be" is to exist without past and future; "not always to be" is to pass through temporal successions. Therefore, that lacks generation and always is which never began to be nor had any past or future. This is applicable to the divine essence, for it had neither a beginning of existence nor a succession of time. This is the efficient cause of the world, for it is the creator of all things. This same thing is also applicable to Divine Wisdom, for it had neither a beginning of existence nor a succession of time. For if God lacks a beginning and cannot be without being wise (for it is the same thing for him to be and to be wise), therefore his Wisdom too lacks a beginning; it always is, because to it there is nothing past, nothing future, but all things are present. This Wisdom is the formal cause of the world because God formed the world according to it.²

Then William investigates the question whether the sensible world had its origin in time, with time, or before time. He begins by giving three definitions of time. The general definition is especially interesting in that it separates time from motion and allows for the passage of time even when potentially movable things are at rest:

Time is the dimension of delay and the motion of mutable things. According to this there are two aspects of time, i.e., according to the delay of mutable things in a place, and according to a motion from place to place. This is called general because it is applicable to the whole and to each part.

² William of Conches, *Glosae super Platonem* 32, ed. Edouard Jeuneau (Paris, 1965), 172-73.

The total definition is this: time is that interval (*spatium*) which began with the world and will end with the world. This definition, since it applies to the whole world and to no part of it, is called total.

The partial definition is given by Cicero: "Time is a certain part of eternity, i.e., of that huge interval, which measures a day or a night of that interval with a definite specification" (*De inventione* 1.26.39). This definition is applicable to a part and not the whole. Therefore, when we use the word "time" attributed to the sensible world, it can be understood according to the general or total definition.³

Since the sensible world was not suited to be eternal, God conferred time on it. "Time is the image of eternity, because those things which are held all at once in eternity are contained in time successively."⁴

But was the world made before time, or in time, or with time? William agrees with Plato that it was made with time, but one suspects that the two men meant rather different things by that formula. It could not have been before time, William argues,

because that from which it was was a delay and a motion of mutable things, and thus time. Neither could that delay and motion of mutable things have existed without the world. Therefore time did not precede the world, and the world did not precede time, but the world was made with time. Therefore the phrase: "The world did not ever begin" must be understood as meaning that it did not begin in time, and one who says this does not deny that the world began, but that it began in time. Therefore it does not follow that if the world did not ever begin, therefore it lacked a beginning, because, although it did not have a beginning "ever," i.e., in time, it nevertheless had a beginning with time. In Plato's phrase: "Time is coeval with the heaven," i.e., the world, time is to be understood according to the total definition, for otherwise it would be false.⁵

³ *Ibid.* 94-95, pp. 175-77.

⁴ *Loc.cit.*

⁵ *Ibid.* 97, p. 180: "Non enim ante tempus potuit esse quia ex quo fuit, fuit mora et motus rerum mutabilium, et ita tempus. Et illa mutabilium mora et ille motus sine mundo esse non potuit. Ergo nec tempus precessit mundum nec mundus tempus. Cum tempore ergo factus est mundus. Si ergo inveniatur 'mundus non incepit unquam,' ita intelligatur: non incepit unquam id est non incepit in tempore. Nec negat mundum incepisse qui hoc dicit sed in tempore incepisse. Non ergo sequitur: si non incepit unquam, ergo caret principio, quia etsi non habuit principium unquam, id est in tempore, habuit tamen principium cum tempore. Et hoc est: *Tempus est coequevum celo*, id est mundo. Sed hic accipiat tempus secundum totalem diffinitionem; aliter enim falsum esset."

William's "total definition" of time was especially important. In his glosses on the *Consolation of Philosophy* he used it to show that Aristotle had not taught anything contrary to the Christian faith concerning the eternity of the world. He knew of Aristotle's doctrine only through Boethius' presentation of it: "Therefore whatever is subject to the condition of time -- even such as Aristotle thought the world to be, that it did not ever begin and will never end and whose life is stretched out with an infinity of time -- is nevertheless not such a thing as the eternal is rightly considered to be"; and on the basis of this formulation he says: "Aristotle said that it [i.e. the world] had not ever begun. Therefore he did not deny that it had begun, but that it had 'ever' begun, i.e. in time. For time could not have existed before the creation of the world, since it is the dimension of delay of mutable things."⁶

Although the purpose for which William used this definition gives it a daring sound, it is in fact firmly based on Augustine: "There can be no doubt that the world was not created in time, but with time. An event in time happens after one time and before another, after the past and before the future. But at the time of creation there could have been no past, because there was nothing created to provide the change and movement which is the condition of time."⁷ "If there was no time before the creation of heaven and earth, the question, 'What were you [God] doing then?' is meaningless, for when there was no time, there was no then."⁸

Despite the Augustinian origin of William's definition, it was apparently used in the early thirteenth century, as Aristotle's works of natural philosophy were becoming available in Latin translations, to establish Aristotle as a doctrinally safe author. In about 1230, Philip the Chancellor adopted William's interpretation of Aristotle and combined it with that of Maimonides to construct the most common understanding of Aristotle's doctrine on the eternity of the world until near the end of the thirteenth century.⁹

The text of Augustine referred to by William explicitly denies the infinite duration of time and asserts a definite beginning, while pointing out the different modes of existence of God (simple eternity) and creation (temporal extension). William certainly accepted Augustine's doctrine on this point, although he seems to have stretched for a verbal formulation

⁶ *In consolationem philosophiae commentarius*, ed J. M. Parent, in *La doctrine de la création dans l'école de Chartres* (Paris and Ottawa, 1938), 133-35.

⁷ Augustine, *De civitate Dei* 11, 6.

⁸ Augustine, *Confessiones* 11, 13.

⁹ See R. C. Dales, "The Origins of the Doctrine of the Double Truth," *Viator* 15 (1984), 169-79, on pp. 170-71.

which would accommodate the doctrines of both Plato and Aristotle. William did not accept, as Boethius may have, the Aristotelian position that the world is infinite in temporal duration, and in fact seems to have accepted the definition of "perpetual" as that which had a beginning but will not have an end.¹⁰ His own teaching permits a rather daring verbal formulation -- "the world did not ever begin" -- but tempers this with a reference to Augustine. William's words would have far-reaching influence. His "total definition" of time was to become a commonplace in the thirteenth century. And his interpretation of Aristotle's doctrine was widely accepted and became an important element in the myth of the "doctrine of the double truth," alleged by bishop Tempier's condemnations of 1277.¹¹

A more difficult case is an anonymous author of *De elementis*, who wrote probably in the 1160s somewhere in southern Italy.¹² *De elementis* is not a hexameron or a commentary on someone else's text, but a completely independent essay on the formation of the world and the way the elements interact to produce the world we experience. It makes some use of Lucan, Virgil, Macrobius, Boethius, and Aristotle, is greatly influenced by the *Timaeus*, and is in many ways an elaboration of Thierry of Chartres's *De sex dierum operibus*, with which it has numerous points of contact.¹³ In this work, the world is considered to be the result of atoms in motion. Each of the four elements is defined by the velocity of its minimal parts, fire being most rapid and acting as *artifex*, air and water being progressively less rapid, and earth being immobile with respect to its atoms, although parts of it may be set in motion and it may move as a whole. All the properties and qualities of the elements and their interactions are derived from their atomic velocities. Therefore, as soon as the elements exist, the world exists. Anonymous twice makes statements that seem clearly to be asserting the eternity of the world, in the sense of the lack of a temporal beginning: "The origin of the elements is motion, which motion is *ab eterno*,"¹⁴ and at the end of the same

¹⁰ William of Conches, *In consolationem philosophiae comm.*, ed. Parent, p. 136: "Quoniam quidem mundus non debet dici eternus, itaque ostendamus qualiter debeat vocari, scilicet perpetuus, creator vero eternus; et est perpetuum quod habet principium et caret fine."

¹¹ See Dales, "The Origins of the Doctrine of the Double Truth," 178-79.

¹² Text in Richard C. Dales, "Anonymi *De elementis*: From a Twelfth-Century Collection of Scientific Works in British Museum MS Cotton Galba E. IV," *Isis* 56 (1965), 174-89.

¹³ See Richard C. Dales, "The Use of Thierry of Chartres' *Hexameron*" by Anonymi *De elementis* and Robert Grosseteste, *Journal of the Rocky Mountain Medieval and Renaissance Association* 1 (1980), 11-20.

¹⁴ *De elementis* 1.6, p. 182.

long paragraph: "Thus the origin of the elements is motion, which, descending *ab eterno* into matter, makes all the elements."¹⁵ We would probably not have any doubts as to his meaning if he had not said, in the midst of the same paragraph: "Moreover, motion coming into matter from the artifex in the beginning suddenly made the extreme and contrary elements at the same time, just as in the air, the sun is not prior to its light, since one is the cause of the other."¹⁶

Everything turns on the meaning of the phrase *ab eterno*: does it mean "from eternity" or "eternally," or does it mean "from that which is eternal"? Anonymous's immediate sources for this portion of his work were Thierry of Chartres's *De sex dierum operibus* and *Lectiones in Boethii librum de trinitate*. In his hexaameron Thierry applied the Platonic notions of unity and otherness to God and creatures, saying that "unity precedes all otherness, since unity precedes the two (*binarium*), which is the principle of all otherness and the substance of all mutability."¹⁷ In his *Lectiones* on Boethius's *De trinitate*, arguing that matter is not coeternal with God, he amplifies this somewhat: "But mutability descends from immutability. Matter is mutability. Nevertheless it is itself between something and nothing, as is said in Plato. Therefore the error of those who have said that matter is coeternal with God is clear, since matter descends from God, and God created it, that is, he is its principle and cause. Therefore, the eternal simplicity, which is God, can exist without matter."¹⁸ Although the relation between an atemporal God and his temporal creation is far from clear in this statement, still Thierry was clearly not asserting the eternity of the world.

But was Anonymous asserting it? He uses Thierry's contrast of unity and otherness: "Just as every otherness descends from unity, thus every mutable thing descends from the immutable."¹⁹ Now we could consider the words *motus* and *eternum* (*ab eterno*) in his argument as substitutes for "mutable" and "immutable" -- in fact a very strong case could be made for this interpretation. On that view, Anonymous would simply be repeating Thierry's argument, complete with its ambiguities. Another of Thierry's pupils, Clarenbaldus of Arras, explicitly gives this meaning to his master's words: "Mutabilitas enim ab immutabilitate ex necessitate descendit. Immutabilitas vero est aeternitas quae Deus est. Quare ne-

¹⁵ *Ibid.* 1.43-44.

¹⁶ *Ibid.* 1.14-16.

¹⁷ *De sex dierum operibus* 30, ed. Nicolaus M. Häring in *Commentaries on Boethius by Thierry of Chartres and His School* (Toronto, 1971), 568.

¹⁸ *Lectiones in Boethii librum de Trinitate* 25, ed. Häring, 163.

¹⁹ *De elementis* 1.9-10.

cesse est mutabilitatem ab aeternitate descendere."²⁰ But other contemporary uses of *ab aeterno* in similar contexts²¹ imply that here, as in other places,²² Anonymous was going beyond his sources and in this instance was asserting the eternity of the world. In any case, Anonymous's statement in the middle of his argument that God did this "suddenly in the beginning" shows us that he, like Thierry, had not reconciled, and had probably not perceived, the fundamental incompatibility between the creation accounts of Genesis and the *Timaeus*, but that he was much more under the Platonists' influence than was Thierry. In fact, his teaching, as well as that of the anonymous commentator on the *De consolatione*, is fairly close to that of the *moderni* denounced by Alan of Lille in his *Summa "Quoniam homines"*: "There were also among the moderns some people who said that primordial matter had existed from eternity (*ab eterno*), and nevertheless proceeded from God just as light proceeds from fire. It was not eternal because it was created. ... Therefore God did not exist before it. Nevertheless it was from him and was always with him, just as a foot makes a footprint in the dust, which is not posterior to the foot, but nevertheless is from it."²³

There is much less doubt about the position of Bernard Silvestris. It is dangerous to use a myth, especially one that employs a good deal of allegory, as a source for specific doctrines, and Bernard's *Cosmographia* has given rise to widely different interpretations.²⁴ But we are not obliged here to interpret the whole poem, only to determine what Bernard taught about the eternity of the world. Any way we read the poem, it is difficult to escape the conclusion that he taught the perpetuity of the world. In book 1, chapter 4, he writes:

²⁰ *Tractatus de hexameron*, ed. N. Häring, in "The Creation and Creator of the World according to Thierry of Chartres and Clarenbaldus of Arras," *AHDLMA* 22 (1955), 137-216, on p. 208. Clarenbaldus also makes the striking assertion that God is only the creator of substances, not of accidents. He states that time is an accident of mutable things and consequently came into being with them, not before them (p. 212).

²¹ For example, John of Salisbury, *Metalogicon* 4.35, p. 207 and Alan of Lille, *Summa "Quoniam homines"*, ed. P. Glorieux, "La somme 'Quoniam homines' d'Alain de Lille," *AHDLMA* 20 (1953), 113-364, on pp. 128-29; anonymous glosses on the *Timaeus* in Paris MS Bibl. nat., lat. 8624, fol. 17r, printed in Tullio Gregory, *Platonismo medievale* (Rome, 1958), 130; and Toni Schmid, "Ein Timaioskommentar in Sigtuna," *Classica et medievalia* 10 (1949), 258.

²² See Dales, "The Use of Thierry of Chartres' *Hexameron*," 12-15.

²³ *Summa "Quoniam Homines"*, p. 129.

²⁴ See especially E. Gilson, "La cosmogonie de Bernardus Silvestris," *AHDLMA* 3 (1928), 5-24, and T. Silverstein, "The Fabulous Cosmogony of Bernard Silvestris," *Modern Philology* 46 (1948-49), 92-116.

The entirety of things, the world, is not worn out with feeble old age, nor will it be dissolved by a final death, since its law of enduring (*ratio permanendi*) was drawn from the craftsman and cause of the work -- both sempiternal -- and from the matter and form of the material -- both perpetual.²⁵

Here he seems to be saying that the world is at least perpetual. A bit farther on in a nonallegorical prose section, Bernard distinguishes time and eternity only by motion and stability:

For just as the world becomes whole from that which is whole and becomes beautiful from that which is beautiful, thus it acquires eternity from its eternal exemplar. Beginning from eternity, time returns to the bosom of eternity, wearied by the long, long route. From unity it separates into number, from stability into movement. ... The instants of the present, the running out of the past, the expectation of the future are the movements of time. And so time continues forever to trace and retrace these paths. ... Because of this very necessity of turning back on itself, time seems to rest in eternity and eternity to be moved in time. ... Eternity is that from which time must be born and into which it must be resolved. If it were possible that it not fall into numbers, not flow into movement, time would be the same thing as eternity.²⁶

Just before the beginning of this last quotation, the words: *Equeva namque generatione mundus et tempus* might make us wonder whether perhaps Bernard's real view is radically different from that of William of Conches, that is, that the world was created with time, and whether he may be concealing a creationist view behind a Platonic myth. But this does not seem likely. Brian Stock's remarks on this passage seem to me completely sound: "This origin, however, is not a statement about God's creation of the world and time; it is a metaphor for the continuous and cyclical revolutions by which time emanates from eternity and returns to its source and by which the cosmos, along analogous principles, is period-

²⁵ Bernard Silvestris, *Cosmographia* 4.4, ed. Peter Dronke (Leiden, 1978), 117.

²⁶ *Ibid.*, 4.11, p. 119. I have adopted Winthrop Wetherbee's translation of the last sentence [*The "Cosmographia" of Bernard Silvestris* (New York, 1973) 90]. Very similar wording is found in the anonymous *Liber Hermetis Mercurii Triplicis De .vi. rerum principiis*, ed. Theodore Silverstein, *AHDLMA* 22 (1953), 217-302, on p. 250, vv.37-39. Silverstein was not sure whether Anonymous or Bernard was the borrower (p. 236). But immediately above the lines just cited, in distinguishing among *annosum*, *seculare*, *perpetuum*, and *eternum*, the author seems to consider all four as degrees of temporal extension. This lack of coherence would suggest that Bernard was the source and "Hermes" the borrower.

ically renewed from its source."²⁷ Bernard has come all the way to the doctrines of Calcidius and Boethius. He undoubtedly accepted the creation of the world from nothing, but at the same time considered it to be eternal.²⁸

From this brief examination it is clear that discussions of the world's eternity during the second quarter of the twelfth century were considerably different in character from those of the thirteenth. In the first place, they were based ultimately on the *Timaeus*, which was understood by many twelfth-century writers to be a philosophical myth and which was considered by some, but by no means all, of them to be consonant with Christianity. Consequently, no twelfth-century author felt himself to be teaching anything contrary to faith. Moreover, in the twelfth century, the primary concern seems to have been the reconciliation of the major authorities, Platonic and biblical, both of which were somewhat vague on the question under investigation. Different men felt the tensions to different degrees and in different ways. The anonymous commentator on Boethius's *De consolazione* was sufficiently under the influence of the historical approach that he (apparently unknowingly) did violence to Boethius and Plato. At the other extreme, Bernard Silvestris was so dominated by the Platonic approach that he seems to have felt no uneasiness about his strictly Platonic account of time and eternity. Uneasiness is, however, evident in the writings of William of Conches, who saw what the problem was and, prizing both the Genesis and Platonic traditions highly, tried perhaps vainly to reconcile them. The anonymous author of *De elementis* was not interested in the question of the world's eternity per se, but seems to have asserted it without being clearly aware of the implications of his teaching.

What is even more surprising is the lack of any vociferous opposition to these writings. There was certainly no dearth of controversy during this period on many other topics, but considerations of the eternity of the world evoked no violent protests, although there were several matter of fact statements of the differences between the Platonic and Genesis creation accounts. The early twelfth century was a time when even sophisticated men could still believe that truth is one, that the great *auctores* (Hermes, Plato, the Bible, the poets) all taught the same thing, and that the scholar's task was to perceive the identity concealed behind apparent differences.

²⁷ Stock, *Myth and Science*, 149.

²⁸ This is the consensus of Gilson, "La cosmogonie," 20; Silverstein, "Fabulous Cosmogony," 102; and M.D. Chenu, *Nature, Man, and Society in the Twelfth Century* (Chicago, 1968), 58-59.

The second half of the twelfth century saw little interest in or discussion of the eternity of the world. Although many of the works translated from Greek and Arabic which became available during this period taught that the world was without a temporal beginning, this fact seems not to have been clearly perceived, and writers such as Gundissalinus present us with an undigested conflation of texts implying an eternal world with perfectly traditional statements about creation *de novo*. Alan of Lille, in the text from his *Summa* "*Quoniam homines*" quoted above, implied that certain moderns held that the world was created by God out of eternal pre-existing matter which was created by him by way of emanation. But the views which Alan summarizes are to be found in Augustine's *De civitate Dei* 10, 31. I have found no twelfth-century text which conforms completely to Alan's allegation.

One author of the second half of the century though was to have a profound influence on the thought of the conservative party during the thirteenth century. This was Richard of St. Victor, who in his *De trinitate* spent quite a bit of time and effort arguing for the non-eternity of the world. While conceding that nothing is held more firmly than that which is apprehended by an abiding faith, he sets out to show nevertheless that the truths which are held on faith can also be proved by absolutely necessary reasons. This was to be the defining doctrine of the extreme conservative party during the thirteenth century.

As a foundation for his subsequent reasoning, Richard devised an argument in book 1, ch. 6 of *De trinitate* which would have considerable currency, sometimes in a modified form, from the earliest thirteenth-century question on the eternity of the world until about 1270. In the form it was usually given by thirteenth-century authors, I have dubbed it the "two means" argument. In this argument Richard also makes the claim, which would be common to both moderate and extreme conservatives of the next century, that to be from nothing is necessarily to have a temporal beginning. Richard states it as follows:

Everything which is or can be either has being from eternity or began to be in time. Everything which is or can be either has being from itself or has being from something other than itself. And so universally all being is distinguished by a threefold principle. For the being of every existent will either be from eternity, not from itself; or, on the contrary, neither from eternity nor from itself; or, mediately between these two, from eternity but not from itself. For the fourth, which seems to correspond to the third member as its contrary, nature in no way permits to exist. For nothing can be completely from itself which does not exist from eternity. For whatever began to be in time was once nothing. But for as long as it was nothing, it had absolutely nothing and was

capable of absolutely nothing. Therefore it gave being or power neither to itself nor to another; otherwise it gave what it did not have and made that which it was unable to make.²⁹

But the most important event of the twelfth century for our topic was Peter Lombard's decision to include the following words in book 2, distinction 1 of his *Sentences*:

Describing the creation of things, scripture shows that God is the creator and beginning of time and of all visible and invisible creatures in the beginning by saying: *In the beginning God created the heaven and the earth*. By these words, Moses, inspired by the spirit of God, relates that the world was made by God the Creator in one beginning, destroying the errors of some people who think that there were several principles without a beginning. For Plato thought there were three sources, namely God, the exemplar, and matter, and that matter was without a beginning, and that God was like an artisan, not a creator. For a creator is one who makes something out of nothing; and "to create" properly speaking is to make something out of nothing, while "to make" means not only to effect something from nothing, but also from matter. ... Aristotle posited two principles, namely matter and species, and a third called the maker. [And he] also [claimed] that the world always is and was.³⁰

²⁹ Richard of St. Victor, *De trinitate* 1, 6, *PL* 196, 893D-894A: "Omne quod est vel esse potest, aut ab aeterno habet esse, aut esse coepit ex tempore. Omne quod est, aut esse potest, aut habet esse a semetipso, aut habet esse ab alio quam semetipso. Universaliter itaque omne esse triplici distinguitur ratione. Erit enim esse cuilibet existenti, aut ab aeterno, nec a semetipso, aut econtrario, nec ab aeterno, nec a semetipso, aut mediate inter haec duo ab aeterno quidem, nec tamen a semetipso. Nam illud quartum quod huic tertio membro videtur e contrario respondere, nullo modo ipsa natura patitur esse. Nihil enim omnino potest esse a semetipso, quod non sit ab aeterno. Quidquid enim ex tempore esse coepit, fuit quando nihil fuit; sed quandiu nihil fuit, omnino nihil habuit, et omnino nihil potuit; nec sibi ergo, nec alteri dedit, ut esset, vel aliquid posset. Alioqui dedit quod non habuit, et fecit quod non potuit."

³⁰ Peter Lombard, *Libri Sententiarum* 2, d. 1: "Creationem rerum insinuans Scriptura, Deum esse creatorem initiumque temporis atque omnium visibilium vel invisibilium creaturarum in primordio sui ostendit, dicens Gen. 1: *In principio creavit Deus coelum et terram*. His etenim verbis Moyses Spiritu Dei efflatus, in uno principio a Deo creatore mundum factum refert, elidens errorem quorundam plura sine principio fuisse principia opinantium. Plato namque tria initia existimavit, Deum scilicet, exemplar, et materiam, et ipsam increatam sine principio, et Deum quasi artificem non creatorem. Creator enim est qui de nihilo aliquid facit. Et creare proprie est de nihilo aliquid facere; facere vero non modo de nihilo aliquid operari; sed etiam de materia. ... Aristoteles vero posuit principia, scilicet materiam et speciem, et tertium operatorium dictum; mundum quoque semper esse et fuisse."

When during the 1220s it became first customary and then obligatory for candidates for a degree in theology to write a commentary on the *Sentences*, the eternity of the world was one of the many topics to be included, both in the commentaries themselves, and more importantly in the disputed questions of the theological faculty.

CHAPTER FOUR

EXOTIC VIEWS

During the course of the twelfth and early thirteenth centuries, large amounts of philosophical, logical, medical, theological, and scientific material were translated into Latin from Greek, Hebrew, and Arabic. A portion of this corpus is relevant to medieval discussions of the eternity of the world.

By far the most important of the authors whose works were recovered during this period was Aristotle. His *libri naturales* were translated several times, from both Greek and Arabic, from about 1120 to the late 1260s, but they only slowly made their way into the mainstream of Latin thought. Despite the well-known condemnations of these books in 1210, 1215, and 1231, they do not seem to have been considered dangerous in themselves by most intellectuals, whether theologians, artists, or natural philosophers. This is especially evident concerning his doctrine on the eternity of the world.

As we shall see in more detail later, he was widely understood not to have taught that the world was demonstrably without a beginning. In *Topica* 1, 11 (104b), he had offered the question of whether the world is eternal or not as an example of a subject suitable for dialectical, as opposed to demonstrative, inquiry, and his words: "[There are] other problems also, concerning which we have no argument because they are so vast, and we find it difficult to give any reasons, for example the question whether the world is eternal or not," were widely quoted in support of this interpretation.¹

But this was not the only text implying his uncertainty about the eternity of the world. In a very subtle investigation of the infinite in *Physica* 3, 6 (207a), he had analyzed the infinitely small through a process of division, endlessly taking successive proportional parts of a magnitude, and the infinitely large by continuous additions of integers, and he had concluded that the infinite has only potential, never actual, existence. The infinite is not what has nothing outside it, but rather what

¹ For all of Aristotle's works quoted in this chapter, I have used the English version provided in *The Complete Works of Aristotle. The Revised Oxford Translation*, ed. Jonathan Barnes (Princeton, 1984).

always has something outside it, so that no matter how much you take, you can always take more.

Even in *Physica* 8, 1 (252b), at the end of his most extended and detailed argument for the eternity of time and motion, he concludes by saying that "there never was a time when there was not motion, and there never will be a time when there will not be motion," a statement which made it seem at least possible that, as William of Conches had claimed, he only meant that there was no time before the world, an interpretation which would have put him in agreement with Augustine.

And in *De caelo*, after a detailed technical analysis of the views of his predecessors at the end of book 1, he introduces his own views at the beginning of book 2, 1 (283b) in the most tentative terms:

That the heaven as a whole neither came into being, as some assert, but is one and eternal, with no end or beginning of its total duration, containing and embracing in itself the infinity of time, we may convince ourselves not only by the arguments already set forth, but also by a consideration of the views of those who differ from us by claiming that it came into being. If our view is a possible one, and the manner of generation which they assert is impossible, this fact will have great weight in convincing us of the immortality and eternity of the world.

This certainly looks like the introduction to a dialectical argument, not a demonstrative one. The same may be said for the conditional statement concerning an eternal mover in *Metaphysica* 9, 8 (1050b): "Nor does an eternal movement, if such there be, exist potentially. And if there is an eternal mover, it is not potentially in motion."

But surely the bulk of Aristotle's writings on the eternity of the world seem clearly to imply or explicitly to teach that the world is without a beginning, though not without a first cause on which it depended. His views are most fully presented in the *Physica*. In his penetrating analysis of time in *Physica* 4, 11-12 (219b-221a), he decides that the "now" is not a part of time, since time is not composed of "nows" any more than a line is composed of points; it is rather the boundary between the past and the future, and so it must always have past time on one side of it and future time on the other. Consequently time could never have begun, nor can it ever end.

This is repeated in summary form in book 8, 1 (250b-252b), where he conducts his most thorough investigation into time and motion and their inseparable connection. He asks if motion ever came into being after having not existed and whether it will ever cease to exist. He defines motion as the actuality of the movable insofar as it is movable. Since

such an actualization would necessitate a change in the mover or in the moved or in their relationship to each other; therefore, before the first change, there must have been a previous change. He then ties motion and time together:

How can there be any before and after without the existence of time? Or how can there be any time without the existence of motion? If then time is the number of motion or itself a kind of motion, it follows that if there is always time, motion must also be eternal. ... Now, since time cannot exist and is unthinkable apart from the "now," and the "now" is a kind of middle point, uniting as it does in itself both a beginning and an end, a beginning of future time and an end of past time, it follows that there must always be time; for the extremity of the last period of time that we take must be found in some "now," since in time we can take nothing but "nows." Therefore, since the "now" is both a beginning and an end, there must always be time on both sides of it. But if this is true of time, it is evident that it must also be true of motion. The same reasoning will also serve to show the imperishability of motion. ... It is clear that motion is eternal and cannot have existed at one time and not at another.

At the end of the same book, *Physica* 8, 10 (266a), Aristotle argues from the existence of eternal motion to the nature of the first mover:

It is clear that the first unmoved mover cannot have any magnitude. For if it has magnitude, this must be either finite or infinite. We have already proved that there cannot be an infinite magnitude, and we have now proved that it is impossible for a finite magnitude to have an infinite force, and also that it is impossible for a thing to be moved by a finite magnitude for an infinite time. But the first cause causes a motion that is eternal and causes it for an infinite time. It is clear therefore that it is indivisible and is without parts and without magnitude.

In two other works on natural philosophy we also find evidence that Aristotle held that the world was without a beginning. In *De generatione et corruptione* 2, 10 (336a) he begins his discussion by assuming that the eternity of the world has already been proved: "Since the change which is motion has been proved to be eternal, the continuity of generation follows necessarily from what we have established. For the eternal motion, by causing the generator to approach and retire, will produce generation uninterruptedly." And the section of *De caelo* 2, 1 (283b-284a) which we quoted above can most easily be understood to mean that Aristotle believes that the world is eternal. And in a pseudo-Aristo-

telian work, *De plantis* 1, 2 (817b), there is a single sentence which became a stock argument in scholastic disputations on the eternity of the world, namely that the world has from eternity been full of plants and animals.

One could claim, and many have, that in these works on natural philosophy, Aristotle was treating his subject strictly according to the rules of the particular sciences under study.² But in his *Metaphysica* we also encounter apparently explicit statements of the world's eternity. For instance, in his argument that the actual is prior in substance to the potential, *Metaphysica* 9, 8 (1050b), he says: "Imperishable things then exist actually, nor can anything which exists of necessity be potential. Yet these things are primary, for if they did not exist, nothing would exist." Then, after a criticism of his predecessors' views, he continues in chapter 7:

There is then something which is always moved with an unending motion, which is motion in a circle; and this is clear not only in theory but in fact. Therefore, the first heavens must be eternal. There is therefore also something which moves them. And since that which is moved and moves is intermediate, there is a mover which moves without being moved, being eternal, substance, and actuality.

I have tried to give here a representative sample of Aristotle's teaching on the eternity of the world. It was these texts which were most often quoted or paraphrased by the scholastics on both sides of the question. But there were many other Aristotelian dicta, sometimes taken astonishingly out of context or given an unexpected twist, which filled the pages of thirteenth and fourteenth-century commentaries on the *Sentences* and disputed questions.

Both the Jews and the Muslims also had long-running disagreements over both the eternity of the world and its possibility.³ I do not intend

² On the strictness with which Aristotle observed the proper subject matter of each science, see H. S. Lang, "Aristotle's Immaterial Mover and the Problem of Location in *Physics* VIII," *Review of Metaphysics* 35 (1981), 321-35.

³ On this subject see Harry A. Wolfson, "The Kalan Arguments for Creation in Saadia, Averroes, Maimonides and St. Thomas," *The Saadia Anniversary Volume of the American Academy of Jewish Research* (New York, 1943), 197-245; S. Feldman, "The Theory of Eternal Creation in Hasdai Crescas and Some of his Successors," *Viator* 9 (1980), 289-320; and E. Behler, *Die Ewigkeit der Welt. Problemgeschichtliche Untersuchungen zu der Kontroversen um Weltanfang und Weltunendlichkeit im Mittelalter. Erster Teil: Die Problemstellung in der arabischen und jüdischen Philosophie des Mittelalters* (Munich, 1965).

to investigate these debates in their own right here, but certain Jewish or Islamic authors who had something to say on the subject were translated into Latin and had a clear influence on the scholastic tradition. Whether or not their views were adopted, they provided arguments on one side or the other which were frequently cited in Latin disputations.

The earliest of these to become available was Avicenna, who probably exerted a deeper and more pervasive influence on Latin thought than any other exotic author but Aristotle, beginning in the last quarter of the twelfth century and continuing through most of the thirteenth.

The heart of Avicenna's doctrine on the eternity of the world is contained in his *Metaphysica*, tractatus 9, chapter 1. Here he maintains that creation never began, and that the universe has always existed. It is, however, created, in that it depends for its existence upon a superior principle, namely God, the Necessary Being. But in sharp contrast to the dominant Christian view, Avicenna holds that Necessary Being necessarily produces that which it causes; it always remains the same and so it always produces the same effect. The Necessary Being exercises its creative activity not by chance or by virtue of a contingent act of the will, but necessarily, since it could not be what it is if it should abstain from creating and producing the world. Although God is causally prior to the world, he could not be temporally prior, for this would involve God in the temporal order.⁴

It is immediately evident that Avicenna has restated some old problems, contained in the works of Augustine and Boethius, in a new, intellectually powerful context. Could God be God if he had not created the world? If God's will cannot change, does this require that the world must always have existed? His arguments were usually met by distinguishing between production by emanation (as the Trinity is produced) and by creation from nothing (by which the world is produced), and by insisting on the freedom as well as the changelessness of God's will.

The works of three other authors, Averroes,⁵ Algazel,⁶ and Maimo-

⁴ There is an excellent recent edition of Avicenna's *Metaphysica* in *Avicenna Latinus: Liber de philosophia prima sive scientia divina*, ed. S. van Riet (2 vols., Louvain/Leiden, 1977-1980). I have based the preceding summary on vol. 2, pp. 434-46 of this edition.

⁵ The date 1230, argued by R. de Vaux, "La première entrée d'Averroès chez les Latins," *RSPT* 22 (1933), 193-245 is widely accepted as the time that Averroes's commentaries first reached Paris. R. A. Gauthier, "Notes sur les débuts (1225-1240) du premier 'Averroïsme,'" *RSPT* 66 (1982), 322-74, expertly criticizes de Vaux's case, and while leaving the matter open, places the reception of at least the commentary on *De anima* in 1225. Still, Philip's progressive contemporary, William of Durham, who left Paris in 1229, shows no knowledge of Averroes in his question on eternity.

nides,⁷ became available at nearly the same time, that is shortly after 1230. Of these, Averroes, the Commentator, was so universally known and so frequently cited that we need only mention that he interpreted Aristotle as having definitely taught that the world was without a beginning. He agreed with this doctrine without qualification and devised a number of subsidiary arguments to strengthen this position, and in the process he also passed along the teachings of other philosophers. It was almost always his Aristotelian commentaries which were cited in connection with the eternity of the world, rather than his original treatise *De substantia orbis*.

Algazel's influence is somewhat ironic, since he was in fact opposed to the views of the philosophers who held to the eternity of the world. But his *Metaphysica*, presenting the views of his opponents whom he intended later to refute, was thought to represent his own opinions and was often used as a repository of arguments in favor of a beginningless world. But the most important aspect of his influence was his transmission of a particular argument against the world's eternity, namely that if the world had existed for an infinite time, there would now be an actually infinite number of human souls departed from their bodies, and an actual infinity is impossible; therefore the world could not be without a beginning.⁸ Algazel himself did not accept the force of this argument and conceded that there could be an actually infinite number of departed human souls, "since there is no natural ordering in them by the removal of which they might cease to be souls, because none of them is the cause of the others, but they are simultaneous, without before and after with respect to nature or position ... but only according to the time of their creation."⁹ The conservatives all used this argument, and insisted that it was demonstrative, ignoring or dismissing Algazel's rebuttal. And even so ardent a supporter of the possible perpetuity of the world as Aquinas found this a difficult argument to get around.¹⁰

⁶ In his edition of the *Metaphysica*, *Algazel's Metaphysics: A Medieval Translation* (Toronto, 1933), J. T. Muckle does not treat the question of the date of the translation. Although the earliest citations of which I am aware (John Blund, *ca.* 1200) are much earlier, they do not become numerous until the 1230s.

⁷ Wolfgang Kluxen, "Literargeschichtliche zum lateinischen Moses Maimonides," *RTAM* 21 (1954), 23-50 established quite convincingly that the Latin version of Maimonides was made between 1230 and 1235.

⁸ Algazel, *Metaphysica* 1, 6, ed. Muckle, pp. 40-41.

⁹ "... quoniam non est inter eas ordinatio naturalis qua remota desinant esse anime, eo quod nulle earum sunt causa aliis, sed simul sunt sine prius, et posterius, natura et situ ... nisi secundum tempus sue creacionis." *Ibid.*, 41.

¹⁰ St. Thomas wrestled with the problem in his *Comm. in Sent.* 2, d. 1, art. 1, 9-5, his *De potentia* and *De aeternitate mundi* without ever coming to a clear conclusion.

But for the eternity of the world, the most important of all these writers was the Jewish teacher Moses Maimonides. Almost as soon as his *Dux dubitantium* was available in Latin, there were Latin authors, beginning with Philip the Chancellor and Alexander of Hales, and continuing through Thomas of York, Albert the Great, Bonaventure, Aquinas, Boethius of Dacia, Siger of Brabant, Roger Bacon, and Henry of Harclay,¹¹ who not only quote his opinions but incorporate them into the structure of their own views on the question.

The eternity of the world was not central to Maimonides's treatise. He was concerned in the *Dux dubitantium* to clear away the doubts many people had on the proper meaning of the words of Scripture on a large number of questions, and he felt it to be a mistake to base a proof of God's existence on the creation from nothing, since he considered the latter proposition incapable of proof. In *Dux dubitantium* 2, 18 he drew a distinction between coming into being by natural processes and being miraculously created out of nothing by God:

In no way therefore ought a proof to be taken from the nature which a thing has after it has attained its fully completed being for that same thing at the moment of its coming into being. ... We, who believe Moses our teacher and Abraham our father, believe that the world was created to such and such a form, and that one thing was made from another, and that some things were created after other things. But Aristotle, wishing to destroy our faith, brings forth arguments against us concerning the nature of actually completed being. We concede what he says but insist that after a thing has reached its completed state, it is not similar in any respect to what it was at the moment of its creation, which took place after absolute non-being. Moreover, this reasoning about the present properties of things is irrelevant to our position. It only has force to one who concedes that the nature of the thing as it is now demonstrates something about its creation. ... Aristotle said that prime matter is neither generable nor corruptible, and he brought forth proofs of this contention which concerned generable and corruptible things, and he showed the impossibility of its generation. And what he said is true. For we do not say that prime matter was made just as man is made from the sperm, nor can it be corrupted as man can be turned to dust. But we say that the Creator made its being from nothing, and it is just as He made it to be, since by Him all things are made; and whatever was generated from it is corrupted into it. Nor will you find it stripped

¹¹ See Dales, "The Origin of the Doctrine of the Double Truth" and "Henricus de Harclay, Quaestio Utrum Mundus Potuit Fieri ab Aeterno," *AHDLMA* 51 (1983), 267-99.

of form; and it is the beginning and end of all generation and corruption. But it is not generated in the same way as that which is corrupted into it. But it was created, and not out of something else. And when it will have pleased its Creator, He shall make it into non-being, by a simple and absolute privation.¹²

Maimonides was not troubled by the fact that many of the tenets of faith could not be demonstrated rationally. It was far better, he felt, to accept revealed truth on authority than to offer weak proofs, for otherwise the discovery of the fallacy in the argument might lead to disbelief of revelation. "Let me say," he wrote,

that whatever those men might say who claim that they have produced a demonstrative argument for creation, I will not deceive myself that I should call these ways of proof demonstrations. But when a man has tried to prove some question demonstratively, and it turns out that he was mistaken in thinking he had done so, it seems to me that this does not strengthen the truth of the question, but rather weakens it, and it leads us to doubt it. For when the weakness of such demonstrations becomes evident, our mind is less likely to believe that proposition which the argument tried to prove. It is preferable that the matter which is not demonstrated

¹² *Rabbi Mossei Aegyptii Dux seu director dubitantium aut perplexorum* (Paris, 1520), 2, 18, fol. 49r-v: "Nullo autem modo debet sumi probatio de natura rei post esse suum perfectum in fine perfectionis dispositionum suarum ad eandem rem in hora sui motus ad exeundum ad generationem. ... Nos qui credimus Moysi magistro nostro et Abrahae patri nostro credimus quod mundus creatus fuit secundum talem et talem formam, et quiddam fuit factum ex alio, et quaedam creata post alia. Aristoteles vero volens destruere fidem nostram, inducit probationes contra nos de natura entis perfecti in actu; de quo concedimus quod post statum suum atque perfectionem non assimilatur in aliquo ei quod erat in hora creationis, quia est post privationem absolutam. Quae autem ratio de universitate rationum suarum firmabitur contra nos; illa vero sequerentur concedenti quod natura huius esse quod modo est, demonstrat super esse suae renovationis. ... Dixit Aristoteles quod materia prima nec est generabilis nec corruptibilis, et induxit probationes super hoc de rebus generabilibus et corruptibilibus, et ostendit impossibilitatem suae generationis earum; et hoc idem verum est. Non enim dicimus quod materia prima est facta sicut fit homo ex spermate; neque corrumpitur sicut homo qui convertitur in pulverem. Sed dicimus quod Creator fecit esse de nihilo, et est sicut fecit eam esse, quoniam ex ipsa facta sunt omnia, et in eam corrumpitur quicquid est generatum ex ipsa; nec invenies eam nudam a forma, et usque ad ipsam pervenit generatio et corruptio. Ipsa vero non generatur sicut illud quod generatur ex ea, neque corrumpitur sicut illud quod corrumpitur in ipsam; sed est creata, et non de aliquo; et cum voluerit creator ipsius, faciet ipsam non esse, privatione perfecta et absoluta."

be taken as an axiom, or that one or the other of the possible solutions be accepted on authority.¹³

He held that neither the creation of the world in time nor its everlastingness was capable of demonstrative proof:

What they call proofs for the creation of the world in time contain many doubtful elements. And this proof is not precisely a demonstration, except to one who does not know the difference between a demonstration, a victory of dialectic, and a deception of a sophism. But to one who knows this, it is obvious that all these proofs are doubtful because they depend on antecedents which have not been proved. ... But a skilled and true observer, who is not deceived, knows that man does not reach knowledge of the question about the newness or eternity of the world through a rigorous demonstration, but in this matter there are only probable arguments.¹⁴

Since creation is the act of the divine will, which is inscrutable, no argument based upon an alleged knowledge of that will is valid:

The third way they try to prove the eternity of the world is this: that whatever God's wisdom considers it necessary to produce immediately comes forth. But his wisdom is coeternal with his substance; therefore, what results from them is eternal. But this conclusion is very weak. For just as we do not know the secrets of his wisdom, such as why there are nine spheres, neither more nor fewer, and there are just so many stars, neither more nor fewer nor greater nor smaller, thus we do not know other secrets of his

¹³ *Ibid.* 2, 17, fol. 48v: "[E]t dicam quia quicquid dicant loquentes qui putant quod induxerunt demonstrationem super novitatem, non eligo illas demonstrationes, et non sophisticabo animam meam ut vias eorum nominem demonstrationes. Cum vero iactaverit se homo quod inducat demonstrationem super alia questione, et erraverit, istud apud me non astruit veritatem illius quaestionis, sed debilitatur, et ponit viam ad ratiocinandum super illo. Cum enim oritur debilitas talium demonstrationum, debilitatur anima in credendo rem illam super quam inducuntur demonstrationes, et remanebit res quae non demonstratur in plano suae quaestionis, vel quod recipiatur in ea altera partium destructionis, et istud facilius contingeret."

¹⁴ *Ibid.* 1, 70, fols. 29v-30a: "[Q]uae dicunt esse probationes in novitate mundi accident in eis dubitationes, et non est ipsa probatio demonstratio praecise, nisi ei qui nescit differentiam inter demonstrationem et victoriam dialectice et deceptionem sophisticæ. Scienti enim ista, manifestum est quod hoc in omnibus illis probationibus sunt dubitationes, et convenerunt in illis propter antecedentia quae non sunt probata. ... Quilibet autem speculator mundus et verus qui non decipit animam suam quod ad scientiam huius quaestiones de novitate vel antiquitate mundi non pervenit homo per demonstrationem certam, sed sunt in hoc rationes intelligibiles."

wisdom, such as why he created all things at a particular time, when shortly before they did not exist. But all these things follow from his eternal wisdom, in which there is no variation. But we are completely ignorant in understanding the motives of that wisdom. According to our understanding, will follows wisdom; but in God, substance and wisdom are the same thing.¹⁵

Having decided that there were no demonstrative reasons for the eternity of the world, Maimonides exonerated Aristotle of having believed that he had given them. He argued that Aristotle did not teach that the world was eternal, but only refuted the errors of his predecessors who argued otherwise; his proofs are not demonstrative, and surely he, the founder of logic, realized this:

But our whole intention is to show that his [Aristotle's] opinion is more probable than the opinions of those who contradict him, and who say that physical reasoning leads to the belief that the heavens share in generation and corruption, or that there was never a time when they did not exist, or that they were created but will never be corrupted, and other opinions which he puts forth. And without a doubt it is true that his opinion is nearer the truth than theirs, according to those proofs which are taken from the nature of the universe as it now is. ... But I have no doubt that those opinions which Aristotle mentions concerning the eternity of the world, and the cause of the diverse motions of the heavens, and the order of the separate intelligences -- indeed all of these things -- lack demonstrative proof, and Aristotle never made the mistake of thinking that such arguments are demonstrations, but, as he himself said, the ways of demonstrating these conclusions are closed to us, nor do we have a principle from which to construct a proof of them. And this is his plain word, as you know. For he says that in a matter about which our reasoning is insufficient or which proves difficult for us, we should know that we cannot say why it

¹⁵ *Ibid.* 2, 19, fol. 50v: "Via tertia est per quam volunt probare antiquitatem mundi, scilicet quicquid exigebat sapientia Dei ut exiret, iam exiit. Sapientia vero ipsius est coaeterna suae substantiae; ergo quod sequitur ex illis est aeternum. Haec autem consequutio est multum debilis. Sicut enim nos ignoramus arcana sapientiae ipsius, scilicet quod caeli tot sunt, et non plures nec pauciores, et quod stella tot sunt, nec plures nec pauciores nec maiores nec minores; sic ignoramus arcana sapientiae ipsius, scilicet quare creavit omnia a tempore quod multo prius non fuit; sed haec omnia sequuntur sapientiam ipsius aeternam, in qua non est variatio. Nos autem sumus ignorantes in fine ignorantiae in intelligendo illud quod convenit illi sapientiae et debitum eius. Voluntas namque secundum sensum nostrum sequitur sapientiam. Haec autem idem sunt, scilicet sua substantia et sua sapientia."

is thus any more than we can say whether the world is eternal or not. (Cf. *Topica* 1, 11 [104b]).¹⁶

While each of these authors exerted considerable influence on Latin thought, their importance for debates on the eternity of the world varies. The two most important were Aristotle and Maimonides, although the nature of Aristotle's influence has, I believe, been misunderstood. It is indubitably true that he provided a number of arguments for a beginningless world, but he also defined the infinite in such a way that it could be, and often was, used in arguments against that position. And much of what he said, as well as the way he said it, made the interpretation of Maimonides seem reasonable to large numbers of thinkers, including Alexander of Hales and Bonaventure as well as Thomas Aquinas and Boethius of Dacia. In any case, the thirteenth century debate on the eternity of the world was already well under way before Aristotle's natural philosophy, Averroes's commentaries, or Maimonides's interpretations exerted any appreciable influence, and although the works of these exotic authors influenced the later content and direction of the debates, they did not occasion it.

¹⁶ *Ibid.* 2, 15, fol. 48v: "Verum tota nostra intentio est ostendere quod opinio eius est probabilior opinionibus contradicentium ipsi, dicentium quod consideratio physica inducit ad credendum quod caeli communicant in generatione et corruptione, vel nunquam non fuerunt, vel quod fuerunt creati et non corrumpuntur, et rationes aliarum opinionum quas ponit. Hoc autem verum est sine dubio quod opinio eius propinquior est veritati quam illorum opiniones secundum probationes quae acceptae sunt de natura universitatis. ... Apud me vero non est dubium quod opiniones illae quas dixit Aristoteles in antiquitate mundi, et causa diversitatis motuum caelorum, et ordine intelligentiarum separatarum, haec quidem omnia non habent demonstrationem, nec unquam erravit Aristoteles in putando quod rationes istae sunt demonstrationes, sed sicut ipse dixit, viae demonstrationum super istis rationibus sunt nobis clausae, nec habemus principium unde sumamus demonstrationem ad illa; et hoc est planum verbis ipsius, sicut scis. Dicit enim in eo cuius non habemus rationem, vel est difficile ostendere nobis. Scito quod si dixerimus cur its fuit, defectus est sicut si dixerimus est mundus antiquus an non."

CHAPTER FIVE

THE EARLY THIRTEENTH CENTURY

It has usually been assumed that thirteenth-century debates on the eternity of the world were occasioned by the *libri naturales* of Aristotle, and by the works of certain Arabic authors, especially Avicenna, Algazel, and Averroes. Recent studies by Luca Bianchi¹ and Omar Argerami² emphasize this theme, and I myself have expressed the same view.³ But a close study of the texts having to do with the eternity of the world between the 1220s and *ca.* 1260 forces us to a somewhat different conclusion. In this chapter we shall investigate a largely overlooked period in the history of our subject, beginning with the earliest scholastic questions on the world's eternity which I have been able to find and carrying the story up to the time of Bonaventure and Aquinas. Regardless of ambiguities about the eternity of the world in the writings of some thinkers during the earlier Middle Ages, the Fourth Lateran Council in 1215 had declared the temporal beginning of the world to be an article of faith, thus limiting the scope of disputations on the eternity of the world. There was only one permissible solution to the question. Also, Peter Lombard had been explicit on the matter, so the task of the early scholastics was to provide refutations of the arguments for the world's eternity which had been transmitted by the patristic authors, especially by Augustine, and by the philosophers, especially Avicenna and Aristotle, and to some extent to reconcile the orthodox view with the teaching of the philosophers.

¹ Luca Bianchi, *L'errore di Aristotele. La polemica contro l'eternità del mondo nel XIII secolo* (Florence, 1984).

² Omar Argerami, "La Cuestion 'De aeternitate mundi': Posiciones Doctrinales," *Sapientia* 27 (1972), 313-334; *Ibid.* 28 (1973), 99-124 and 179-208.

³ Richard C. Dales, "Discussions of the Eternity of the World During the First Half of the Twelfth Century," *Speculum* 57 (1982), 485-508, on p. 508.

Early Questions

William of Durham. In the very rich collection of theological questions contained in the famous Douai MS 434,⁴ dating from around 1230, are included the questions on eternity of three masters. The first and most extensive of these is a group of six questions, dating probably from the late 1220s, by William of Durham:⁵ "Primo quid sit eternitas; secundo que differentia eius ad tempus vel eternitatem increatam; tertio quale spacium et cuiusmodi ibi sit; quarto cuius vel quorum sit, an angelorum, animarum, demonum, in inferno, in patria; quinto quid sit in eternitate; sexto an plura eterna vel eternitates plures."

The structure of William's questions is very loose, and they seem more like a somewhat formalized classroom discussion than a disputation among masters. The questions announced at the beginning of the work are in fact often interrupted by subsidiary questions raised by the *opponens*, apparently a student (or students) rather than another master. Many of these latter are extremely interesting, although the replies are usually quite brief and often disappointing.

These questions arise not out of the text of Aristotle, but rather out of Boethius's *De consolazione philosophiae* and Augustine's *Confessiones* and *De civitate Dei*, and they seem to have been prompted by Peter Lombard's *Liber Sententiarum* 2, dist. 1. William is very old-fashioned in his outlook, but he uses an interesting variety of sources, including Isaac Israeli's *Liber de definitionibus* (not named), Damascenus's *De fide orthodoxa*, pseudo-Dionysius the Areopagite's *De divinis nominibus*, of which he knew two translations,⁶ and Aristotle's *Physica*. But his major authorities are the text of Scripture, Augustine, Boethius, Anselm, and Bernard of Clairvaux.

Although this work does little toward providing satisfactory solutions of the questions it raises, it is nevertheless of seminal importance, as it

⁴ For a description of this manuscript and its contents and date, see P. Glorieux, "Les 572 questions du manuscrit de Douai 434," *RTAM* 10 (1938), 123-52, 225-67 and V. Doucet, "A travers le manuscrit 434 de Douai," *Antonianum* 27 (1952), 531-80.

⁵ Douai, Bibliothèque municipale MS 434, tom. 1, fols. 83va-84ra. For a summary of what is known of William, see A. B. Emden, *A Biographical Register of the University of Oxford to A.D. 1500* (Oxford, 1962), III, 370-71. Since William left Paris in 1229, and these questions seem definitely to be connected with Paris rather than Oxford, they must have been written before that date.

⁶ He quotes Sarrazin's translation of *De divinis nominibus* 10: "Proprietas evi est antiquum et invariabile et secundum totum metiri," and then gives Eriugena's: "universale esse in metiendo," as the "alia translatio." See *Dionysiaca: Recueil donnant l'ensemble des traductions latines des ouvrages attribués au Denys de Aréopage*, ed. Ph. Le Chevallier (2 vols., Paris, 1937), I, 489.

enunciates some matters which would become standard in subsequent debates on the eternity of the world. It begins with a word by word criticism of Boethius's definition of eternity in *De consolazione philosophiae* 5, pr. 6; the master is at pains to distinguish among many similar words which seem to mean almost the same thing (*eternitas*, *evum*, *perenne*, *perpetuum*, *eternum*, *tempus*, and *temporale*), although the attempt was not particularly successful (in William's defense, we must point out that there is hopeless inconsistency in the use of these terms among his authorities, thus adding further confusion to an already difficult problem); the problems of whether the "nows" of time, *aevum*, and eternity are the same or different and whether there is continuation and quantity in eternity are discussed at some length; it concedes that time has no beginning *ex se* but only *extra se*; and it introduces one of the more common arguments of the early period of debates on the eternity of the world that if one posits the extremes, he must posit the means, and that therefore there should be something which is *ab alio* and *ab aeterno*.

The *opponens* however raises some very important points and keeps hammering away at the inconsistencies in William's arguments. After some pedestrian objections to each word of Boethius's definition of eternity, he notes that if eternity is a universal measure, as pseudo-Dionysius had said, then it must exist always and everywhere. Then, seizing upon Bernard of Clairvaux's assertion that "to the memory, God is the continuation of eternity,"⁷ he notes that "then in eternity there exists continuation and thus quantity, and something is continued to something else, or one 'now' to another 'now,' or something of this sort."⁸ Again, "The 'now' of eternity is the continuation of being in eternal things; the 'now' of time is its continuation in temporal things; and the one continuation is not the same as the other. Therefore the 'nows' are different. But 'when' eternity exists, time has the same 'when.' Therefore they have the same 'now.'"⁹ The disappointing response: "Idem nunc est adverbialiter, sicut idem quando; non est idem nunc nominaliter," does not stop the *opponens*, who objects to William's explanation of Ephesians 2:7: *in saeculis supervenientibus*. "If one day is continued," he says, "therefore

⁷ Cp. Bernard of Clairvaux, *Sermones super Cantica canticorum* 9, 5, *Sancti Bernardi Opera*, edd. J. Leclercq, C. H. Talbot, and H.M. Rochais (9 vols. Rome, 1957), I, 57.

⁸ "Item obicitur: dicit Bernardus: 'In anima tria intueor, rationem, voluntatem, memoriam, et hec tria ipsam animam esse dico. Rationi futurum est deus plenitudo lucis, voluntati multitudo pacis, memorie continuatio eternitatis.' Ergo in eternitate est continuatio et ita quantitas. Et aliquid continuatur ad aliquid nunc ad nunc vel aliquid huiusmodi." *MS cit.*, fol. 83va.

⁹ "Nunc eternitatis est continuatio esse in eternis; nunc temporis est continuatio in temporalibus. Et alia est hec continuatio quam illa. Ergo aliud nunc. Sed aliud circa quando est eternitas, et tempus idem quando. Ergo idem nunc." *MS cit.*, fol. 83vb.

there will be a continuation there [i.e., in eternity]. And how can there be renewal there?"¹⁰

William's replies to these objections are vague or incoherent, or they miss the point, but among them is one assertion of considerable interest. The *opponens* has just argued that everything which precedes or follows things of the same kind is untermiated, and time is such a thing; therefore it is untermiated and thus eternal. William answers this by saying that time does not have a beginning *ex se*, but *extra se*. This is a brief but clear statement of the position which would become widespread in subsequent discussions of the eternity of the world. A few years later, it would be extrapolated from Maimonides's *Dux dubitantium* by Philip the Chancellor and Alexander of Hales and would become one of the major elements of the so-called "doctrine of the double truth."¹¹

But William also displays two of the major weaknesses which will vitiate most conservative arguments in the Middle Ages concerning the eternity of the world. First is the characteristic we have already noted, the inability to conceive eternity as simple, especially as not involving before and after, and of confusing it with unchanging duration through endless time. Second is the contention that since a creature is "from nothing," it must have its being after its non-being, and thus it could not be beginningless (*ab aeterno*); that is, *ex nihilo* means *post nihil*.¹² This arises in response to the *opponens*'s observation that every temporal thing is doubly between being and non-being: between non-being and being in the past, and between being and non-being in the future. Thus there would be two means, one between non-being and being, the other between being and non-being.¹³ William responds that there can be only one mean, namely that which has non-being before being. It is impossible to conceive a being other than God which would not have non-being before itself and would have being after. If there were two means, then every creature would have being before itself, and the creator would be a creature; and this is impossible to conceive. This same argument, often framed somewhat differently, will become a commonplace in discussions

¹⁰ "Ideo dicit *seculis supervenientibus*, sive futuris, quia multa tempora et secula erunt post diem iudicii atque illa unica dies. Sed obicitur: si una dies continuata, ergo ibi erit continuatio. Item, quomodo ibi renovatio?" *MS cit.*, fol. 83vb.

¹¹ See Richard C. Dales, "The Origin of the Doctrine of the Double Truth," *Viator* 15 (1984), 169-79.

¹² This equivocation has also been noted by Luca Bianchi, *L'errore di Aristotele*, p. 170 and Omar Argerami, "Circa Petri de Tarantasia Quaestionem 'De Aeternitate Mundi,'" *Patristica et Medievalia* 4 (1983), 74-84, on p. 75.

¹³ This is William's formulation of the "two means" argument, based on Richard of St. Victor, *De trinitate* 1, 6.

of eternity. In fact, the attempt to locate the non-being of the world would produce some of the most interesting arguments in the tradition.

Anonymous I. In the second and slightly later volume of this same manuscript, there are two groups of three questions each on eternity by an anonymous master.¹⁴ The first group ("Quid sit eternitas; utrum eternitas et deus idem; utrum eternitas, tempus, et evum idem") begins, like those of William of Durham, with a criticism of Boethius's definition of eternity. Its authorities, in addition to the *Consolation* and the text of Scripture, include Isidore of Seville, Hilary of Poitiers, Augustine, Anselm, and the Philosopher, who turns out in one case to be not Aristotle, but Plato, and in the other the pseudo-Aristotelian *Liber de causis*; clearly not an avant-garde group.

The author's concept of eternity is hopelessly confused. In his Response, defending Boethius's definition, he defines eternity as "duration lacking beginning and end," and ends by calling it "duration without any succession." In the solution of the second question, he says that eternity and God are the same, but there are different ways of talking about them, because "eternity" indicates a measure and is therefore spoken of some things of which God is not spoken. He borrows and expands Augustine's list of the different ways "before" can be understood¹⁵ and uses these distinctions to dispose of all his difficulties; and in trying to decide whether eternity, *aevum*, and time are all the same, he uses having or lacking beginning and end and being created or uncreated as his principal criteria.

But in the third of this group of questions, both the objections and solutions become more interesting. The *opponens* states the very heart of the problem of relating the eternal to the temporal, which will be repeated many times during the century: God exists now; this angel exists now; and this motion exists now. The "now" is either the same for all three, or it is one or another of the three. If it is the same "now," then time, *aevum*, and eternity are the same. And if the "nows" are different, there will be several "nows"; which seems absurd. In his response to this, our master hits upon a point which will be greatly expanded by Robert Grosseteste and Eustace of Arras. He denies the absurdity because "different measures are simultaneous with respect to different things." This hardly constitutes a satisfactory reply, but it opened up the way for much more extended and satisfactory treatments.

This objection is followed by a fuller version of the "two means" argument we have noted above at the end of William of Durham's questions:

¹⁴ Douai, Bibliothèque municipale MS 434, tom. 2, fols. 101va-102rb.

¹⁵ Cp. Augustine, *Confessiones* 12, 29.

If one posits the extremes, he must posit the mean. There is some substance which is from something and is eternal, and some substance which is from nothing and *ex tempore*. Therefore there will be some substance which will exist from eternity and *ex nihilo*. In his reply to this, the master betrays the same confusion between *ex nihilo* and *post nihil* which we noted in William's reply: "We say that there cannot be any substance which would be beginningless and from nothing, because if it is from nothing it began to exist, and thus it is not beginningless (*ab eterno*)."¹⁶

These questions are followed immediately by another group of three,¹⁷ presumably by the same author. The first of these is the earliest example of which I know of a question which would be among the most frequently debated of discussions of eternity, namely whether God made the world eternal, stated here in the somewhat more restricted form: *Utrum deus fuerit causa rerum ab eterno*. Although the discussion is still strongly indebted to Augustine, some Aristotelian notions have crept in, probably by way of Arabic intermediaries; for example, if one posits that the sufficient and efficient cause exists, one must necessarily posit the effect. In this question, the responses are more interesting than the objections. The master holds that although God is the cause of the world from eternity, nevertheless the effect is not eternal. This does not imply any impotence on God's part, but rather on the part of things, which, since they were *ex nihilo*, could not have existed from eternity. And the example given by the *opponens* of the Father eternally generating the Son is not to the point, because the Son is of the same substance as the Father, while the world is from nothing.¹⁸

Our author also investigates the problem from the standpoint of relations in answering the objection (derived from Augustine and Boethius¹⁹) that God was not Lord from eternity because there was nothing for him to be Lord of. He says that the analogy does not hold between Lord and cause, because "Lord" indicates an actual relation, to which there corresponds servitude to another, whereas God can be a cause (*causa*) without being a causer (*causans*).

¹⁶ "Dicimus quod non potest esse aliqua substantia que sit ab eterno et ex nichilo, quia si ex nichilo, incepit esse, et sic non fuit ab eterno." *MS cit.*, tom. 2, fol. 102ra.

¹⁷ *MS cit.*, tom. 2, fol. 102ra-rb.

¹⁸ This rebuttal was still being used as late as 1284 in the question *Utrum mundus sit eternus*, Resp. 2 of Arlotto of Prato. Richard C. Dales, "Friar Arlotto of Prato on the Eternity of the World," *Collectanea Franciscana* 56 (1986), 37-51, on p. 46.

¹⁹ Cp. Augustine, *De civitate dei* 12, 16 and Boethius, *Quomodo trinitas unus deus* 5. The treatment here is closer to Boethius.

Finally the *opponens* brings up another distinction which will become a commonplace, namely that between creation as an action of the creator, and creation as a passion undergone by the creature. He claims that there must have been some creature to undergo the action. The master's response points out that no passion corresponds to the act of creation, because God does not require anything on which to act, and thus the *exitus* of the world is nothing other than coming into existence.

Anonymous II. There is a very brief question near the end of the same manuscript, asking explicitly: *Si deus potest facere mundum ab eterno.*²⁰ The first argument *quod sic* is again that God is the sufficient and efficient cause from eternity, but it adds the matter of the divine will, which does not change. In this connection, the master offers an example which will be used in slightly modified form by Bonaventure in his commentary on the *Sentences*.²¹ The *opponens* had said: "If I wish now to arise tomorrow, it is necessary that when I arise, there be something in me that is not in me now. Therefore similarly if the Lord wished from eternity to make the world in time, it is necessary that there should be something in him which was not there earlier; which cannot be." The master concedes that God willed from eternity to make the world in time, but he adds:

But although the Lord is the efficient and sufficient cause and he exists from eternity, nevertheless his effect did not issue forth from eternity; and this is because he is a cause acting according to pure liberality. Therefore the First Cause and natural causes are not the same, for inferior causes act by some change in themselves, while the First Cause does not. Whence the solution to the argument is clear, namely that if I wish to do something tomorrow, it is necessary that something be changed in me when I shall do it. But this is not the case with God because of the pure liberality according to which he works.²²

²⁰ Douai, Bibl. munic. MS 434, tom. 2, fol 195va-vb.

²¹ Bonaventure, *Comm. in Sent.* 2, dist. 1, art. 1, q. 2. But Bonaventure argues the other way, saying that if I now wish to attend Mass tomorrow, there is no change in my will tomorrow when I do so.

²² "Licet autem dominus sit causa sufficiens et efficiens, et sit ab eterno, non tamen exit ab eterno effectus. Et hoc est quia est causa agens secundum meram liberalitatem. Unde non est simile de causis naturalibus et causa prima. Agunt etiam cause inferiores secundum sui mutationem, quod non agit causa prima. Unde patet solutio illius rationis, scilicet quod si volo aliquid facere cras, oportet aliquid mutari tunc in me cum illud agam. Sic autem non est in deo propter meram liberalitatem secundum quam operatur." *MS cit.*, fol. 195vb.

The *opponens* also takes from Augustine the question of whether God could have made the world earlier than he did. The master replies with an argument which is derived from Augustine's *De civitate dei* 12, 13, admitting that God could have made the world any number of years at all before he did, but that this number, no matter how large, would always be finite. Eternity, he says, is not made up of times any more than a line is made up of points.

The Accomodation of Aristotle

During the 1230s, there were some significant developments in discussions of eternity, as the debate moved to a new level in the *Summa de bono* of Philip the Chancellor and two extensive sets of questions by Alexander of Hales. The new elements were the natural philosophy of Aristotle and the *Dux dubitantium* of Moses Maimonides.

One of the most able and original thinkers of the early scholastic period at Paris was Philip the Chancellor, who died in 1236. Still, his works are little known, probably because many of his most original ideas were appropriated by later better known masters, especially the great Mendicant theologians Alexander of Hales and Albert the Great. Until recently his *magnum opus*, the *Summa de bono*, which he completed shortly before his death, was unpublished (although Leo W. Keeler has edited several chapters on the soul from it²³), but in 1985 an excellent critical edition appeared.²⁴ Philip's writings are of crucial importance for discussions of the eternity of the world and related topics.

He treats this topic near the beginning of the *Summa de bono*, in the form of an extended gloss on Lombard's *Sententiae* 2, distinction 1, where he undertakes to show that the world is not eternal. He is the first author aside from Robert Grosseteste whose work exhibits a thorough firsthand knowledge of the *libri naturales* and of the commentaries of Averroes, from both of which he draws a number of arguments which seem to prove that the world, time, and motion are eternal. In his Response to these arguments, he prefaces his remarks with an interpretation of Aristotle's meaning which would have a very wide currency among later thinkers. He makes an explicit distinction between the way theologians carry on their work and the way a natural philosopher proceeds,

²³ Leo W. Keeler, SJ, ed., *Ex Summa Philippi Cancellarii Quaestiones De Anima* (Münster i.W., 1937).

²⁴ Nicolas Wicki, ed., *Philippi Cancellarii Parisiensis Summa de Bono*. Corpus Philosophorum Medii Aevi. Opera Philosophiae Mediae Aetatis Selecta (2 vols., Bern, Switzerland, 1985).

and he asserts that Aristotle must be understood only as a natural philosopher describing how the world of nature, already in existence, operates, and not how it came to be in an absolute sense after it was not.

Concerning this question, one must understand that the arguments which Aristotle gives are only for the purpose of proving that the world is perpetual and not eternal. I call that thing 'perpetual' and not 'eternal' which is measured by the totality of time and a mobile. For it is [Aristotle's] own meaning, according to the requirements of natural philosophy, that a mobile and motion and time should be shown to be coeval. Nor can these arguments which are taken from the principles of [natural] philosophy be taken further to prove that if the mobile itself were eternal, motion and time would be eternal. But it is not within the realm of that philosophy to investigate the coming forth of the first mobile into act, and then to separate the mobile from the immobile, as in the planets, but that motion is from the immobile. Not does he determine that the mover is a first cause. But in his comment on *Metaphysica* 9, Averroes establishes that just as the motion of the lesser circular bodies is from an intelligence, thus the motion of the first body is from the first intelligence. But according to a theologian, it seems that one ought not to have said *primum mobile*, but that a certain cloudy substance or confused light was moved over the face of the deep.²⁵

He then goes on to note that according to Aristotle's teaching in *De generatione et corruptione* 2, 10 (336a) concerning a motion which is natural rather than voluntary, it seems that either no multitude proceeded from the First, or that whatever proceeded from it did so eternally; and from this it would follow that all souls existed from eternity, whereas faith teaches that they are created at the same time as they are infused into the body. This would imply that something always behaving in the

²⁵ "Ad hoc intelligendum est quod rationes quas ponit Aristoteles non sunt nisi ad probandum mundum esse perpetuum et non eternum. Illud autem dico perpetuum et non eternum quod commetitur se toti tempori et mobili. Hec enim est intentio secundum proprietatem illius philosophie ut ostendatur mobile et motum et tempus esse coequeva, neque in amplius possunt rationes que ibi sumuntur ex principiis illius philosophie quod si ipsum mobile esset eternum, motus esset eternus, et tempus. Non fuit autem de proprietate illius philosophie investigare exitum primi mobilis in esse et sic separare nobile ab ignobili, ut in planetis, sed quod motus sit ab ignobili; nec determinat quod motor ille sit prima causa. Sed supra IX *Metaphisice* determinat Commentator quod sicut minorum corporum circularium motus est ab intelligentia, ita primi corporis a prima intelligentia. Secundum theologum non videtur hic fuisse dicendum primum mobile, sed nubeculam quandam vel lucem confusam moveri super faciem abissi." *Summa de bono*, ed. cit. I, 49.

same way (i.e., God) should do dissimilar things. Philip's solution is that the proposition: "idem similiter se habens innatum est semper facere idem," is true only of created things which undergo something when they act.²⁶

In concluding his chapter, Philip takes up a question which had also appeared in much the same form in the question of William of Durham, which for convenience I call the "two means" argument, derived from Richard of St. Victor's *De trinitate* 1, 6, concerned with investigating whether something which has its being from another can have existed from eternity. In Philip's work, it is framed thus: There is an eternal procession from another in unity of essence, and a non-eternal procession in diversity of essence; the mean between these is an eternal procession in diversity of essence (and eternal means that which did not exist after having not existed). Since the extremes are posited, and nothing is incomplete in the order of the universe, there will therefore be a mean progression, if this is possible. And if it is not possible, we should ask why.²⁷

Philip's answer contains the expression of a major contention which would become first the standard doctrine, and after Aquinas one of the key doctrines of the conservatives on the Parisian theological faculty, namely that being created means having a temporal beginning. Philip argues that to be from another, not from itself, is to come forth from non-being to being, and no such thing is eternal. There are three mea-

²⁶ "Et dicimus quod illa propositio: idem similiter se habens etc. non est vera nisi cum sumitur de creaturis et ita sumitur ab Aristotele secundum proprietatem doctrine in libro De generatione et corruptione de motu naturali, non voluntario. Si enim sumeretur universaliter ad creatorem et creaturam, oportet dicere nullam multitudinem processisse a Primo aut quecumque processerunt ab eterno processisse. Ex quo sequeretur omnes animas ab eterno extitisse, quas ponit fides creari et infundi simul. Quod si ab eterno extitissent, quid faceret earum coniunctionem cum corporibus, nisi prima essentia similiter se habens dissimilia faceret? Sol etiam illuminat quod non prius sine sui mutatione. Unde mihi videtur quod non est vera illa propositio: idem similiter se habens etc. nisi in eis que cum agunt patiuntur." *Summa de bono*, ed. cit., I, 49.

²⁷ "Est processio eterna ab aliquo in unitate essentie; quasi ex opposito est processio non eterna in diversitate essentie; medium inter hec processio eterna in diversitate essentie, et eternam dico que non est post non esse. Cum ergo extrema posita sint et nichil est incompletum in ordine universi, erit processio media, si possibile est eam esse. Si dicatur quod non est possibile, queratur propter quid." *Summa de bono*, ed. cit., I, 51. Cp. William of Durham, *Questiones de eternitate*, MS cit., tom. 1, fol. 84ra; Anon., *Questiones tres de eternitate*, Douai, Bibl. munic. MS 434. tom. 2, fol. 102ra; Alexander of Hales, *Quaestiones 'De aeternitate, aevo, et tempore' et 'De duratione mundi'*, ed. Donald Nathanson, unpublished Ph. D. thesis, University of Southern California, 1986, 64-65; Odo Rigaldus, *De erroribus circa durationem rerum exeunium*, Bruges, Stadsbibliotheek MS 208, fol. 194vb; and Anon. (John of La Rochelle?) *Comm. in Sent.* 2, dist. 1, Todi, Bibl. com. MS 121, fol. 131ra.

asures: eternity, which has neither beginning nor end, *aevum*, which has a beginning but lacks an end, and time, which has both a beginning and an end, and each measures its appropriate differentia: God, angels and spiritual substances, and temporal things respectively. "But the fourth differentia is not found to which another measure corresponds, namely that it might not have a beginning but have an end." Whatever will have an end cannot have lacked a beginning, "because 'not to have an end' follows upon 'not to have a beginning,' and 'not to have a beginning' is more noble than 'not to have an end.'"²⁸

Philip opens question IV, *De exitu temporis in esse et comparatione eius ad eternitatem*, with a discussion of a problem which would engage a number of later thinkers during the thirteenth century and which had already been posed by Philip's colleague, William of Durham, namely whether two times, or two durations, could exist simultaneously.²⁹ To solve the problem, Philip makes a distinction, which would later be greatly developed and improved upon by Eustace of Arras,³⁰ between a proper measure and a transcendent measure, which is a measure through excelling and exceeding something else. Time can only be the proper measure of things which have a beginning and end, and no measure is measured by the same kind of thing as it is, and so time could not have come to be in time, but it could have come to be in a transcendental measure which has neither beginning nor end.³¹

²⁸ "Sed dicendum est quod, licet extrema ponantur in rerum natura, ut dictum est, medium tamen illud non convenit secundum ordinationem rerum. Esse enim ab aliquo, non de ipso, est exire de non esse in esse. Sed nullum tale eternum est. Habere enim principium non esse et habere principium durationis convertibilia sunt; mensura enim accipitur non ex parte principii quod est ens, sed secundum quod esse est inter duplex non esse. Unde eius mensura simpliciter est tempus, eius autem quod habet non esse ex parte ante et non ex parte post mensura est evum; eius autem quod ex neutra parte non est mensura, sed idem est in eo esse et sua duratio et dicitur eternitas. Sed non convenit alicui creato esse sine mensura; unde nec eternitas ei convenit. Est ergo eternitas primum, evum sequens, deinceps tempus. Quarta differentia non reperitur quibus alia mensura respondeat, scilicet ut non habeant principium et habeant finem, quia ad non habere principium consequitur non habere finem, et est non habere principium nobilius quam non habere finem." *Summa de bono*, ed. cit., I, 51.

²⁹ See above, p. 52.

³⁰ "Fratris Eustachii Atrebatensis Quaestiones septem de aeternitate," ed. Richard C. Dales et Omar Argerami, *AHDLMA* 55 (1986), 111-139 et 56 (1987), 59-102, on pp.92-95.

³¹ "Respondeo. Si velimus ponere mensuram excellentem, sicut tempus est mensura excellens rerum que fiunt in quadam parte temporis, ita et hic possumus dicere quod, cum exitus temporis in esse sit mensura habentis principium et finem, sicut et res que proprie tempore mensurantur, erit exitus eius in esse in illa duratione que nec habet principium nec finem tamquam in mensura transcendentia. Si autem velimus mensuram propriam ponere, non excedentem, non erit exitus eius in aliquo. Mensura enim non

But Philip considers eternity to be a mode of duration, and so he asks if there can be a proportion between it and time, or whether, as in a point and a line, there is no proportion. He answers that there is no proportion, but he denies the analogy with the point and line. Time and eternity, he says, are of the same genus, since they are both duration, whereas a point and line are not of the same genus. And so the reason there is no proportion between time and eternity is not because they are not of the same genus, but because one is finite, the other infinite. The problem is not that there is no inequality between them, but that there is not a specific, definite (*certa*) inequality.³²

Philip makes a valiant effort to reconcile the Neoplatonic notion of simple, atemporal eternity, derived from Boethius, with the Aristotelian doctrine of infinitely extended time, but his attempt is vitiated at the outset by a conceptual difficulty which would plague thought on time and eternity throughout the thirteenth century. He insisted on assigning duration to eternity, although it seems to me that duration of the atemporal, in which there is no before and after, is an unintelligible concept. Nevertheless, eternity was considered by Philip to be without beginning and end, without before and after, and without motion, and nevertheless to be a kind of duration. In specifying the differences between time and

habet secundum idem genus. Suum autem exire est suum esse; in rebus enim successivis idem est esse et fieri." *Summa de bono*, ed. cit., I, 52. Cp. William of Baglione, *Utrum mundus habuerit suae durationis initium vel sit ponere mundum esse ab aeterno*, ed. Ignatius Brady, "The Questions of Master William of Baglione, O.F.M., *De Aeternitate Mundi* (Paris, 1266-1267)," *Antonianum* 47 (1972), 362-371, 576-616 on 587: "Licet enim aeternitas sit simplicissima, tamen est ambitu, ut ita dicam, amplissima, ut omnino secundum hunc modum sit ei incomparabilis omnis duratio"; and on p. 613: "Verumtamen potest dici quod aeternitas est istorum omnium mensura sicut excedens, et sicut continens(?) omnem durationem"; and Eustace of Arras, ed. cit., 111-139.

³² "Respondeo. In hoc est simile in eo quod inducitur quod utrobique non est proportio, in hoc autem dissimile quod tempus et eternitas sunt eiusdem generis, quia utrumque duratio est, punctus autem et linea non sunt, immo hoc divisionem habens, illud non habens. Unde quod non est proportio temporis ad eternitatem non est ratione diversi generis, sed diversitatis per finitum et infinitum. Unde non removetur quod non sit ibi inequalitas, sed quod non sit ibi inequalitas certa, et ita est ibi mensura transcendens." *Summa de bono*, ed. cit., I, 52. Cp. Anon. *Utrum deus creavit vel creare potuit mundum vel aliquid ab aeterno*, Florence, Biblioteca Laurenziana MS Plut. 17, sin. 7, foll. 153vb-154ra; Anon., (John of La Rochelle?) *Comm. in Sent.* 2, d. 1, Todi, Bibl. com. MS 121, fol. 131ra; and Matthew of Aquasparta *Supposito secundum fidem quod mundus non sit aeternus, sed productus ex tempore, utrum potuit esse ab aeterno vel utrum Deus potuit ipsum ab aeterno producere*, ed. Gedeon Gàl, O.F.M., *Fr. Matthaei ab Aquasparta, O.F.M., S.R.E. Cardinalis Quaestiones Disputatae De Productione Rerum et De Providentia* (Quaracchi, 1956), p. 288: "Et sic potest intelligi mundus aeternus vel Factori coaeternus, non propter durationis identitatem, sed propter quandam conformitatem, quia propter extensionis infinitatem."

eternity, he draws upon Boethius's *De trinitate*³³ and *De consolazione philosophiae*,³⁴ where Boethius had said that the "now" of eternity remains still, while the "now" of time imitates it as best it can, but it can only do so by moving. Boethius himself is not completely clear as to whether these are the same "now" behaving differently in different contexts, or whether they are different in nature, one naturally standing still, the other naturally "running"; although the latter interpretation seems more likely. Philip holds that the "now" is the same in both cases: remaining one in itself, it produces eternity; but joined to the mutable, involving before and after, it produces time by acting as the boundary between past and future. Even though eternity, like being, is properly speaking the same as the divine essence, nevertheless the two differ according to reason, and when we use the word obliquely, we may mean by it something other than the divine essence. If one looked upon a changeable thing without respect to before and after, there would be the "now" itself (*ipsum nunc*).³⁵ In eternity there is no succession or divisibility, and so the "now" remains still. But in things susceptible of change, there is necessarily succession and divisibility, and the "now" provides the basis for the succession and division.

But even though time and eternity are of the same kind, and eternity is in time in a way, time and eternity are not the same and would not be even if, by infinite multiplication, they could be made equal (i.e., both infinite), because time in itself is the measure of things which have a beginning and end, and time itself must have a beginning (here he fails to appreciate Aristotle's point that if an instant is the boundary between past and future, there could not have been a first instant). And even if they could be made equal (in both being infinite), still they would not be

³³ Boethius, *De trinitate* 4, ed. H. F. Stewart and E. K. Rand, *Boethius, The Theological Tractates* (London and New York, 1918), p. 20.

³⁴ Boethius, *De consolazione philosophiae* 5, pr. 6, CSEL 67, 121.

³⁵ "Illud etiam quod dicitur: tempus est pars eternitatis dicitur ratione ipsius 'nunc,' quod si attenditur absque prius et posterius est pars eterni vel eternitas. Prius enim et post non est in tempore nisi ex motu mutabilium, nunc autem in essentia mensura est immutabilium. Et dicimus quod eternitas secundum esse idem est quod divina essentia, sed ratione differunt; eternitas enim est duratio sive continuatio indeficiens. Unde sicut esse dictum de Deo idem est, sed intentione differens, ita est de eternitate cum oblique dicitur. Unde non idem est dicere esse in Deo et esse in eternitate; de nullo tamen dicitur in rectitudine nisi de Deo." *Summa de bono*, ed. cit., I, 53. Cf. Alexander of Hales, *Quaestiones de aeternitate*, ed. cit., pp. 61-62.

the same, because time is inseparable from motion and exists through the succession of parts, whereas eternity is "duration standing still."³⁶

In concluding, Philip makes a claim which would be taken over by William of Baglione³⁷ and more importantly by Eustace of Arras,³⁸ namely that it is not absurd for two durations (i.e., time and eternity) to exist at once, of which one is *simul* and the other *succedens in partibus*, although it is absurd for two successive things to exist at once, neither of which is contained under the other.³⁹

Philip's sources are exemplary of the mixture of old and new which characterized the Parisian scene during the 1230s. In addition to the Bible, he depends heavily on Boethius's *De trinitate* and *De consolazione philosophiae*. He is up-to-date in his use of Lombard's *Sententiae* as the basis for his discussion. He shows a genuine firsthand knowledge of Aristotle's natural philosophy, and he also uses two other authors who had just become available in Latin during the last five years of his life: Averroes, whose commentary on the *Metaphysica* he cites; and Maimonides, from whom he apparently derived his interpretation of Aristotle's teaching on the eternity of the world. The first part of Philip's argument, namely that Aristotle only meant that the world was commen-

³⁶ "Respondeo quod mensura que est tempus non est eadem eternitate, nec ipsa reddit multiplicatione eternitatem vel mensuram equalem illi. Et quod dicitur: tempus infinities etc. dicendum quod non, quia tempus de se est mensura habentium principium et finem et si protenderetur in infinitum non equaretur eternitati, quia non est sine initio, sed eternitas sine. Et si utrobique esset infinitum, adhuc non esset idem quod eternitas, etsi fortassis equale; nam tempus esset succedens in partibus sicut et motus quia inseparabilis est a motu, sicut si ulna esset inseparabilis a quantitate panni, eternitas autem est duratio stans." *Summa de bono*, ed. cit., I, 53. Cp. Anon., *Comm. in Sent.*, loc. cit.: "Ergo non est proportio temporis ad eternitatem. Hoc non est ratione diversi generis, sed ratione diversitatis per finitum et infinitum. Unde non removetur quod sit ibi inequalitas, sed quod non sit ibi inequalitas certa"; Anon., *Questiones tres de eternitate*, MS cit., 434, tom. 2, fol. 101va: "Unde eternitas est duratio carens principio et fine"; *idem*, fol. 101vb: "Dicimus quod eternitas et deus idem sunt sed diversa sunt in modo dicendo, quia eternitas dicit mensuram et ideo de quibusdam dicitur de quibus non dicitur deus"; Anon. *Comm. in Sent.* 2, d. 1, fol. 131rb: "Eternitas autem est duratio stans"; and Eustace of Arras, *Quaestiones de aeternitate*, ed. cit., p. 125.

³⁷ William of Baglione, *Utrum mundus habuerit suae durationis initium vel sit ponere mundum esse ab aeterno*, ed. cit., p. 616.

³⁸ Eustachius of Arras, *Quaestiones septem*, ed. cit., pp. 76-77.

³⁹ "Neque inconueniens est duas durationes esse simul, sed duo successiva esse simul quorum neutrum ab altero continetur." *Summa de bono*, ed. cit., I, 53. Cf. Anon. *Questiones tres*, MS cit., fol. 102ra: "non est inconueniens quod diverse mesure sint simul respectu diuersorum."

surate with the whole of time, is dependent on William of Conches.⁴⁰ Whether he derived the remainder of his interpretation from Maimonides or whether it was original with him I am unable to say with certainty. The translation of the *Dux dubitantium* was just making its appearance (ca. 1230/1235)⁴¹ while Philip was composing this work, so an influence is possible. He does know Averroes, who was introduced at about the same time. On the other hand, Philip uses no tell-tale phrases echoing the Latin version of Maimonides, nor does he mention him by name. And we have already seen that a very similar point of view is to be found in William of Durham, who also made a distinction between the procedures of theologians and natural philosophers, and who almost certainly did not know Maimonides. It is fairly sure that Philip did know William's work, both from the evidence of the texts and from the fact that they were colleagues on the Parisian theological faculty for several years. Still, it seems more likely than not that Philip knew of Maimonides's treatment, either directly or at second hand.

Many of Philip's arguments were taken up by later thinkers and greatly fructified thirteenth-century thought on the eternity of the world; and even those points on which he was anticipated by William of Durham were given a superior presentation by Philip. Furthermore, his *Summa de bono* seems to have been much more influential and widely disseminated than was William's question on eternity, of which only a single MS copy remains.

By far the most important of Philip's positions was his interpretation of Aristotle's teaching on the eternity of the world and the distinction he made between those things which are proper to theology and those which are proper to natural philosophy. This became the standard interpretation at Paris until the 1270s,⁴² at which time it was renounced by the extreme conservative theologians and incorrectly dubbed the doctrine of the double truth. It was accepted by Alexander of Hales, Bonaventure, Albert the Great, and Roger Bacon, among others, as well as the masters of the arts faculty, who frequently invoked it to make clear that they

⁴⁰ *Guillaume de Conchis, Glosae super Platonem* 32, ed. Edouard Jeuneau (Paris, 1965), pp. 171-173 and *In Consolationem philosophiae commentum* ad 5, pr. 6, ed. J. M. Parent, *La doctrine de la création dans l'école de Chartres* (Paris and Ottawa, 1938), pp. 133-35.

⁴¹ On the date of the Latin translation of Maimonides (i.e., 1230-35), see Wolfgang Kluxen, "Literargeschichtliches zum lateinischen Moses Maimonides," *RTAM* 2 (1954), 23-50.

⁴² See Richard C. Dales, "The Origins of the Doctrine of the Double Truth," *Viator* 15 (1984), 169-179.

were investigating the world as it exists and according to its own laws, and not what God could do by supernatural means.

The "two means" argument had almost as much currency as the interpretation of Aristotle's natural philosophy, but in the form we find it in Philip, it did not have as weighty consequences. However, the main point of the argument, that to have one's being from another is inconsistent with lacking a temporal beginning, is central to Henry of Ghent's *Quodlibet* on the eternity of the world,⁴³ and in the Parisian condemnations of 1277 it is forbidden to maintain the contrary.⁴⁴ But even in the form it has in the *Summa de bono*, this argument was widely used and appears in most discussions of the eternity of the world through the 1250s.⁴⁵

Philip must be seen not as the founder of one party among the discussions which would follow, but as a seminal thinker whose influence was widely diffused. Some of his views, such as his interpretation of Aristotle's teaching on the eternity of the world, became the basis for the pro-Aristotelians and independent philosophers. Some of them, such as the comparison of time and eternity, were never involved in partisan disputes but nevertheless identified crucial problems and provided a springboard for further discussions. And some of them, such as his contentions that what has its being from another cannot have been without a temporal beginning (this was a major point of contention between Aquinas and the conservatives) and his confusion between Boethius's simple eternity and Aristotle's infinitely extended time (which was shared by a majority of those who wrote on the subject), became characteristic doctrines of the conservative party during the 1260s and 1270s.

Some time during the second half of the 1230s, Alexander of Hales composed two sets of related questions, one on eternity, *aevum*, and time, the other on the duration of the world.⁴⁶ Both sets appear consecutively in all three MSS which contain them. They have much in common with the questions we have already examined, although they are much more

⁴³ Henry of Ghent, *Quodlibet* I, ed. R. Macken, OFM, *Henrici de Gandavo Opera omnia* (Louvain, 1979) 5, 40-42.

⁴⁴ Prop. 99: "Quod mundus, licet sit factus de nichilo, non tamen est factus de novo; et quamvis de non esse exierit in esse, tamen non esse non precessit esse duratione, sed natura tantum." *Chartularium Universitatis Parisiensis*, ed. H. Denifle and E. Chatelain 1 (Paris, 1889), 549.

⁴⁵ See above, n. 27.

⁴⁶ Alexander of Hales, *De aeternitate, aevo, et tempore*, ed. cit., p. 59. These questions are contained in Paris, Bibl. nat. MS lat. 16406, fols. 2ra-9rb, Bologna University MS 2554, fols. 1ra-6vb, and in a slightly different version Paris, Bibl. nat. MS lat. 15272, fols. 145ra-150ra.

thorough. Throughout these questions, Alexander is at pains to discriminate among the meanings of his durational terms, especially the way they are used in Scripture. He concludes that eternity, although it is properly used only of God, is used analogically of things which share its characteristics. Eternity properly speaking has three conditions: it is simple, invariable, and interminable. Nothing else is simple, but other things may share in being invariable or interminable. Time, for example, although it is composite and variable, considered in itself is interminable, and it is bounded by a cause extrinsic to itself, a point which we have noted above in William of Durham. Indeed, says Alexander, "the formula (*ratio*) of eternity remains in all these things, most properly and perfectly in God, less properly in angels and incorruptible substances, less properly still in the punishments of the damned, and least properly in time."⁴⁷

The second question of this group, like the first of William of Durham and Anonymous I, is a word by word criticism of Boethius's definition of eternity, repeating much of what was contained in the earlier questions but conducting the discussion on a much higher level. Like the older questions, this one defines *aevum* as a measure or duration having a beginning but not an end, and considers it the measure of perpetual things.

The last question treats the very important problem of whether the "nows" of eternity, *aevum*, and time are the same or different. It is posed in much the same terms as it was in Anonymous I -- when this thing is moved, an angel exists, and God is; if these are not in the same "now," then the measure of a corruptible motion, of an angel, and of the very being of God will be three things; these three are either simultaneous or not; if they are not, then it is false to say that God or an angel exists while this motion is occurring -- but with much fuller exposition and with references to Aristotle's *Physica*. In his reply, Alexander concedes that in one way the "nows" are not the same, since they do not fall under the same genus of measure, but in another way (which he prefers) they are the same.

Although God has eternal being, he nevertheless has this eternal being in the present time. Similarly, an angel has its perpetual being in the present time, just as a temporal thing has. But there is this difference, that a temporal thing exists in the present time and is measured by it, and perpetual things, although they exist in

⁴⁷ "Ratio eternitatis in hiis omnibus manet, sed propriissime et perfecte in deo; in angelis et corporibus incorruptibilibus minus proprie; et adhuc minus in penis eternis; et minime in tempore." Paris, Bibl. nat. MS lat. 16406, fol. 2va, Bologna University MS 2554, fol. 1rb.

time (that is, while such a time exists), nevertheless they are not measured by it. And this is much more the case with God.⁴⁸

To illustrate this, Alexander quotes a lengthy section from *De consolatione* 5, pr. 6 to the effect that the "now" of time imitates the "now" of eternity as best it can, but it can only do so by moving. He returns to his earlier position that there is something of eternity in all things, and that even time shares with eternity the fact that it lacks boundaries intrinsically. But it is the nature of the present in time which is most like eternity, although this present cannot remain stable. Time, *aevum*, and eternity are the same in substance, just as a man is the same in substance whether he is at the theater or in the forum; only the accidents vary. He quickly points out that

this "now" is not predicated of God according to his essence, for this would be eternity itself, and in this meaning the "now" of eternity differs from the "now" of time, but it is taken here as a temporal adverb. And similarly, when it is said that an angel is now, and this temporal thing is moved in this "now," it is also the same. And thus it would be said that God has his eternal being in this "now," and an angel has its perpetual being, and a temporal thing has its motion. And understood in this way, it is plain that the "now" of eternity, *aevum*, and time is the same.⁴⁹

The second group of questions, entitled *De materia prima et de mundo* in two MSS and *De duratione mundi* in the other, in fact asks whether the world could be eternal. It contains two distinct parts, which seem to be rooted in two different periods in the development of the debate. The first is much like the traditional discussions which we have examined above, deriving principally from Augustine and Boethius. It begins with

⁴⁸ "... etsi [deus] habeat esse eternum, est tamen habens suum esse eternum in hoc presenti tempore. Similiter angelus suum esse perpetuum habet in hoc presenti tempore, sicut habet res temporalis. Sed in hoc est differentia, quod res temporalis est in hoc presenti tempore et ab eo mensuratur, et perpetua, etsi sint in isto tempore, id est dum est istud tempus, non tamen ab isto mensuratur; et multo magis est hoc intelligendum de deo." Paris, Bibl. nat. lat. 16406, fol.5va, Bologna University MS 2554, fols. 3vb-4ra.

⁴⁹ "... illud non predicaretur de deo secundum essentiam et esset quod ipsa eternitas, et tunc non est dubium quin esset tunc differens secundum substantiam a nunc temporis, sed sumitur ibi nunc secundum quod est adverbium temporale. Et similiter cum dicitur quod angelus est nunc et hec res temporalis movetur in idem nunc, et sic idem est. Ac si diceret quod deus suum esse eternum habet in hoc nunc, et angelus suum esse perpetuum, et temporalis res suum moveri, et sic intelligendo planum est quod idem est nunc eternitatis, *evi*, et temporis." Paris, Bibl. nat. lat. 16406, fol. 6ra, Bologna University MS 2554, fol. 4rb.

an extensive treatment of the "two means" problem, drawing heavily on earlier treatments. This is followed by a discussion of the divine will, divine goodness, and the identity of God's word with his essence; whether God could have made the world before he did; and a comparison between *creatio actio* and *creatio passio*, none of which adds significantly to what had gone before.

But the second part of the questions, clearly indebted to Philip the Chancellor's *Summa de bono*, strikes a new note and bears witness to the growing importance of Aristotle's natural philosophy and the commentaries of Averroes. First Alexander summarized Aristotle's arguments for the eternity of the world. These are the same arguments in the same order as Philip had given them, although Alexander rewords and extends them. But before he proceeds to his rebuttal, he interposes a lengthy and epoch-making paragraph, extending and clarifying Philip's statement. In one version it reads:

It is true that the view is attributed to Aristotle that the world was able to be perpetual and always to have existed. But it should be known that the phrase: "the world always existed" can be understood as meaning that it never had a beginning, and in this sense it is not true; or it can be understood as meaning that the world is commensurate with the whole of time, and in this sense it is true that the world has always existed; and this is what Aristotle believed. For thus the adverb "always" refers only to the totality of time. And it must also be known that those philosophers who wished to prove that the world always existed proceeded only from the principles of natural philosophy. Therefore they were only speaking about these matters in terms of natural mutation. And therefore, because creation is not a natural mutation but is rather above nature in its principles, their position does not touch upon creation. Therefore they only conclude that things did not first come forth into being through the mediation of change, which is generation -- which is true -- but rather through the mediation of creation. And because they do not touch upon creation, since it is not a natural mutation, therefore in this way they posit the world to be eternal, but not in an absolute sense.⁵⁰

⁵⁰ MSS Paris, B.N. lat. 16406, fol. 7vb and Bologna University MS 2554, fol. 5vb: "Verum est quod Aristotili imponitur quod potuit mundum esse perpetuum et fuisse semper. Sed notandum est quod 'mundum fuisse semper' potest dici vel quia numquam ceperit esse, et sic non est verum; vel quia se commeciatur toti tempori, et sic est verum mundum fuisse semper, et sic intellexit Aristotiles. Sic enim hoc adverbium 'semper' dicit totalitatem temporis solum. Notandum est etiam quod isti philosophi qui volebant probare mundum fuisse semper solum procedunt ex principiis naturalis philosophie. Unde solum loquebatur de hiis mutatione naturali, et ideo, quia creatio non est mutatio

And in the other, apparently earlier, version, the argument is presented this way:

We say that motion is neither eternal nor perpetual simply speaking, nor is time, since they have a beginning and an end. But the world may be said to be eternal in the sense that its motion is commensurate with the total duration of time, which has a beginning but not an end, since its existence is only from the will of the Creator. In this way motion can be said to be eternal and always to have existed. And we say that when [the philosophers] offer proofs of its perpetuity, they are only speaking in the way of nature and through natural principles. Therefore, since creation is not a natural beginning but is above nature, it is clear that such things as the motion of the sky and time, which came into being through creation, did not begin by way of nature. And similarly, since the nature of the sky is completely infinite according to nature, motion will not cease, and if not motion, not time either. Therefore, if they cease, they do so by the will of Him who is above all nature. And for this reason, those philosophers who do not transcend nature ... spoke truly. ... But when it is objected that the first motion either was made or is eternal, we say that it was made but not by way of nature nor through a motion of nature, but through creation. In creation there is no eduction from potency into act, as eduction takes place in matter, for then that potency would be a potency of matter such as is in a created nature; or if things were made in potency before being made actual, they were not made in the potency of matter, but only of the agent.

Similarly [concerning] the question about whether matter is ungenerable and incorruptible, we say that it is not generable, but of its nature it always exists. For when it is said that it is not generable since generation is accomplished from pre-existing matter, we reply that it did not come into being through a natural mutation, but through a mutation which is above nature, namely creation, and since matter is made to underly all natural change. And

naturalis sed magis supra naturam in suis rationibus, aut in sua positione attendebant de ista mutatione. Unde non concluderunt nisi quod, mediante mutatione que est generatio, non processerunt primo res in esse -- quod verum est -- sed magis mediante creatione. Et quia nichil attendebant de creatione cum non sit mutatio naturalis, ideo hoc modo posuerunt mundum esse perpetuum, et non simpliciter."

therefore no one speaking as a natural philosopher can do other than posit a matter common to all change.⁵¹

In both versions the essential point is that what Aristotle taught was true because he was speaking about the world in terms of itself, and his doctrine in no way contradicted the Christian tenet that God created the world supernaturally out of nothing. There are two elements in his argument. First is William of Conches' position, based on Augustine, that time and the world came into being together, and that this was all Aristotle meant to say. Second is the assertion, undoubtedly derived from Maimonides, that Aristotle was speaking only as a natural philosopher investigating the way the world works, and that his teaching does not touch upon supernatural creation. This statement of Alexander's would be widely influential. It was accepted by Thomas of York, Bonaventure (with some reservations), Roger Bacon, Matthew of Aquasparta, Albert the Great, Thomas Aquinas, Siger of Brabant, and Boethius of Dacia.⁵²

⁵¹ MS Paris, Bibl. nat. lat. 15272, fol. 149va: "Dicimus quod motus nec est eternus nec perpetuus simpliciter, nec tempus, habent enim principium et finem. Sed loquendo de eterno temporis eius motus commeciatur se toti durationi temporis, que habet principium sed non finem, quoniam est de se nisi de voluntate creatoris. Hoc modo posset dici motus semper esse et eternus ... Dicimus in quod ad perpetuitatem istam probandam non procidebant [philosophi] nisi in via nature et per principia naturalia. Unde, cum creatio non sit initio naturalis sed supra naturam, patet quod ista, scilicet celi motus et tempus que exierunt in esse per creationem non inceperunt secundum viam nature, et similiter cum natura celi sit admodum in infinitum per naturam, non deficit motus, et si non motus neque tempus. Unde, si deficiunt, hoc est a voluntate eius qui est supra omnem naturam. Et propter hoc, philosophi illi qui non transcendebant naturam [*corr. ex materiam*] verum dicebant ... Cum autem obicitur primus motus aut est factus aut est eternus, dicimus quod factus est, sed non per viam nature neque per motum nature, sed per creationem; nec est in creatiseductio de potentia in actum secundum quod heceductio est materialis, potentia enim illa tunc esset potentia materie sicut est in natura creata, aut si fiat in potentia antequam educantur, non sunt in potentia materie, sed agentis tantum. Similiter, quod queritur secundo utrum materia sit ingenerabilis et incorruptibilis [*cod. incorrigibilis*], dicimus quod non est generabilis, nature tamen semper est. Cum enim dicitur non esse generabilis cum generatio fit ex preiacente materia, in hoc dicitur quod non exivit in esse per mutationem naturalem, exivit tamen per mutationem supra naturam, scilicet creationem, et cum ipsa est constituta subter totius transmutationis naturalis, et ideo nullus loquens naturaliter est qui non ponat materiam communem omni transmutationi."

⁵² See R. C. Dales, "The Origin of the Doctrine of the Double Truth," pp. 174-78.

Grosseteste's Reaction

Robert Grosseteste reacted vigorously to the questions of Alexander. To Alexander's contention that Aristotle had taught nothing contrary to the Christian faith, Grosseteste, echoing the words of St. Bernard against Abelard,⁵³ responded:

We adduce these things against certain moderns, who try, against Aristotle himself and his commentators, and also the holy commentators, to make a Catholic of Aristotle the heretic, thinking, with amazing blindness and presumption, that they are able to understand more clearly and interpret more truly the meaning of Aristotle from corrupt Latin versions than could the philosophers, both gentile and Catholic, who knew the entire, uncorrupted, original Greek text. And let them not deceive themselves and sweat in vain to make Aristotle a Catholic, lest they uselessly waste their time and mental powers, and by making Aristotle a Catholic, they make heretics of themselves.⁵⁴

But this was not Alexander's only error. To Grosseteste, Boethius's definition of eternity in the *Consolation*, and especially his perception of its simplicity, contained an essential truth. Grosseteste argues that to the pagans, "eternity" could only mean "duration without beginning or end," but that the elevation of the gaze of the mind (*aspectus mentis*) makes it possible for the Christian to see that eternal does not mean perpetual, but simple, instantaneous, and atemporal. The pagans, whose gaze was bound up in transitory things, could only think of eternity by an analogy with temporal things -- that is, one space after another or one time before another to infinity -- whereas the true situation is that the eternal is simple, enjoying the "full and complete possession of limitless life all at once." The downward gaze of the philosophers had led them to mistake

⁵³ Cf. Bernard of Clairvaux, *Tractatus de erroribus Abaelardi* 4, PL 182, 1062B.

⁵⁴ Robert Grosseteste *Hexaëmeron* 1, 8, 2-4, ed. Richard C. Dales and Servus Gieben, O.F.M. Cap. (London, 1983), pp. 58-61: "Sunt tamen quidam moderni, vanius istis philosophantes, immo demencius istis desipientes, qui dicunt maxime Aristotilem non sensisse mundum carere temporis inicio, sed eum in hoc articulo catholice sensisse, et temporis et mundi initium posuisse. ... Hec adduximus contra quosdam modernos, qui nituntur contra ipsum Aristotilem et suos expositores et sacros simul expositores de Aristotile heretico facere catholicum, mira cecitate et presumcione putantes se limpidius intelligere et verius interpretare Aristotilem ex litera latina corrupta quam philosophos, tam gentiles quam catholicos, qui eius literam incorruptam originalem grecam plenissime noverunt. Non igitur se desipiant et frustra desudent ut Aristotilem faciant catholicum, ne inutiliter tempus suum et vires ingenii consumant, et Aristotilem catholicum constituendo, se ipsos hereticos faciant."

what the eternal was. Perpetuity is an impossible condition; what seems to be perpetual is, when seen correctly, eternal, that is, lacking all composition, whether of matter and form, essence and existence, or, in this case, before and after. The perpetual is a conceptual error.

Taking his cue from Aristotle's *Metaphysica* 10, 1 (1053a), Grosseteste pursued the line of inquiry suggested but abandoned by Alexander. He insisted that since the eternal and the temporal fall under different kinds of measure, one may not make arguments concerning causality or temporal priority as though eternity were infinitely extended time, rather than being different in kind from time.

The philosophers do not understand that the phrase: "the simultaneous coexistence of the full effect with the full cause," implies that the cause and effect fall under the same kind of measure; either both must be temporal, or both must be eternal. Concerning those things which share the same kind of measure, the above argument is efficacious. But if the cause and effect do not share the same kind of measure of being, this rule does not apply to them, namely that if the cause exists, the effect necessarily coexists. Therefore, since God is eternal, and the world and motion and time are temporal, time and eternity are not of the same kind of measure. ... The eternal God is the cause of the temporal world and time, but he precedes them not with respect to time, but with respect to simple eternity.⁵⁵

In this statement there is considerable ambiguity about the meaning of the priority of eternal things to temporal things, which is taken without elaboration from Augustine's *Confessiones* 12, 29. But in his *De finitate motus et temporis* he clarifies the matter somewhat:

If the word "after" signifies a temporal order, there is a contradiction implicit in the phrase [that the first motion was after it was not and had to be drawn from potency to act by a preceding motion], because it is implied that time had preceded the first beginning of motion, and thus that a motion will have existed

⁵⁵ *Hex.* 1, 8, 5-6, *ed. cit.*, p. 62: "Nec intelligunt quod verbum 'coexistencie simul pleni effectus cum plena causa' implicat causam et effectum sub eiusdem generis cadere mensuram, utpote quod ambo sint temporalia, vel ambo eterna. Et in hiis quidem que participant eiusdem generis mensuram, necessaria est argumentacio supra dicta. Si autem causa et causatum non participant eiusdem generis essendi mensura, non potest eis coaptari illa regula ut dicatur: existente causa, necessario coexistit causatum. Cum igitur Deus sit eternus, mundus quoque et motus et tempus sint temporales, tempus vero et eternitas non sint eiusdem generis mensure, ... Deus autem eternus causa est mundi temporalis et temporis, nec precedit ista tempore sed simplici eternitate."

before the first motion, and time before the first time, which is impossible.

Grosseteste continues with an ingenious attempt to explain how the world, time, and motion were after they were not. "Before" they were, they were in the potency of the efficient cause, i.e., God, and not the potency of the material cause, which did not exist. Thus, everything goes from the prior (non-temporal) potency of God to create it into the actuality of its temporal existence:

But if this word "after" signifies the order of time to eternity, and it was first posited that it should signify time, and it was in the second instance used to posit eternity, it is true that the world and time and motion were after they were not; and before they were, they were in potency, so that the priority of eternity to time might be designated. And let us not call potency the potency of the material cause, but only the potency of the efficient cause. Moreover, the proposition: "everything which goes from a prior potency to act," et cetera, is true if it signifies temporal priority, and thus the truth of this proposition holds. But if it signifies the priority of eternal things to temporal things, it is false.⁵⁶

It is only by keeping this paragraph in mind that we can understand his teaching on the non-being of the world: if there was a first instant, in which both time and the world began, and the non-being of every created thing must precede its being, where shall we locate the non-being of the

⁵⁶ "Robert Grosseteste's Treatise *De finitate motus et temporis*," *Traditio* 19 (1963), 245-66, on pp. 258-59: "... si hec diccio 'postquam' significet ordinem temporalem implicita est in sermone ideo contradiccio, quia implicatur quod tempus precesserit primum principium motus et ita quod motus fuerit ante motum primum et tempus ante tempus primum, quod est impossibile. Et non est hec divisio sufficiens: 'motus aut est perpetuus et sine inicio aut fuit postquam non fuit,' quia sub neutram partem istius divisionis cadit mundus vel tempus vel motus vel aliquid cuius esse est esse cum tempore, quia nullum horum est sine inicio. Nec tamen aliquod horum habet initium sub tempore; tamen apud ymaginacionem ponentem quod idem est esse sine inicio at habere esse extensum per moram infinitam est illa divisio necessaria. Si autem hec diccio 'postquam' significet ordinem temporis ad eternitatem et fuit primo positum quod significet tempus et fuit secundo positum eternitatem, verum est quod mundus et tempus et motus fuerunt postquam non fuerint; et priusquam essent fuerunt in potentia, ut designetur prioritas eternitatis ad tempus; et 'potencia' non dicat potenciam cause materialis sed solum potenciam cause efficientis. Hec autem propositio: 'Omne quod de potencia priore exit ad actum,' et cetera, vera est si significetur prioritas temporalis, et sic tenet probacio illius. Sed si significetur prioritas eternorum ad temporalia, falsa est."

world? He applies his distinction between the measures of eternity and time to the problem:

I say that there is a fallacy in this argument because the intellect does not distinguish between the priority of time and the priority which signifies the order of eternity to time. For time without a beginning does not measure the non-being of the world and of those things which began with the world, nor does time as a whole, but eternity. Therefore, the non-being of those things was not before, that is, in a time before their being, but it was before in the higher measure than their being, because their non-being was in eternity and their being in time.⁵⁷

But if the non-being of the world is in eternity and its being in time, it would seem that from the standpoint of the eternal (i.e., God) the world is not, unless one introduces "before and after" into eternity,⁵⁸ and Grosseteste has already explicitly and vehemently denied the propriety of this. This objection is serious, but the problem is inherent in the Augustinian doctrine, which Grosseteste accepted, that time and the world were created together. But it is perhaps not fatal. The non-being of the world is in eternity in the sense that the world's being does not exist in eternity except in God's potency to create it. The further question of just how the eternal and temporal are related is not explored here by Grosseteste.

William of Auvergne shared Grosseteste's view that Aristotle had taught the eternity of the world, although whether he derived it from him is not clear.⁵⁹ In any case, he did not place so much importance on it as did the bishop of Lincoln. Buried in his vast *De universo* is the remark: "Whatever might be said and whoever might try to excuse Aristotle, this was indubitably his meaning, that the world is eternal and that it did not begin to be. And he thought the same thing about motion, and Avicenna

⁵⁷ *De finitate*, ed. cit., pp. 60-61: "Dico quod in hac racionacione est deceptio propter hoc, quod intellectus non distinguit inter prioritatem temporis et prioritatem que significat ordinem eternitatis ad tempus. Non-esse namque mundi et eorum que cum mundo ceperunt non mesurant tempus sine inicio nec omnino tempus, sed eternitas. Non igitur fuit eorum non-esse prius, id est in tempore priore quam eorum esse, sed fuit prius, id est in superiori mensura quam eorum esse, quia eorum non-esse in eternitate fuit et eorum esse in tempore."

⁵⁸ I am obliged to Norman Kretzmann for this observation.

⁵⁹ Although the wording of William's statement in *De universo* sounds as though it was derived from Grosseteste's *Hexaëmeron*, the composition dates of the two works make it difficult to make any assertions of dependence. Grosseteste probably completed his *Hexaëmeron* in 1235 in Oxford, and William finished the *De universo* no later than 1236 in Paris. So the matter is far from clear.

after him. And they brought forth arguments and proofs for this. Similarly also other commentators of the same Aristotle thought the very same thing."⁶⁰

The Next Generation

During the following generation, that of men who wrote during the 1240s and 1250s, we find reflections of the writers of the 1230s, a summary treatment of the question as it stood in mid-century, but not yet the injection of a hostility into the discussions which would both exacerbate feelings on both sides of the issue and inspire a much higher quality of thought on the eternity of the world. Although we have no extant philosophical questions from this period, the disputations of the arts faculty are reflected to some extent in those of the theologians, who by now have a sure command of Aristotle and Averroes.

In Todi MS 121 there is an anonymous question on the eternity of the world,⁶¹ sometimes ascribed to John of La Rochelle,⁶² which is little more than a copy of the section of Philip the Chancellor's *Summa de bono* which we printed above, beginning with a summary of the arguments "by which Aristotle seems to claim that the world is eternal"; then claiming that Aristotle only meant to prove that the world was commensurate with the whole of time, and that it is proper to natural philosophy to show that the mobile and motion and time are coeval and not to investigate the eternal going forth (*exitus*) of the *primum mobile* into being *according to theology*; and finally offering arguments against the eternity of the world. This is important primarily as evidence of the acceptance of this interpretation of Aristotle by a Franciscan (whether John of La Rochelle or someone else) arguing against the eternity of the world, and of the explicit distinction between the sciences of nature and theology. And, although the purpose of this section was to explain Aristotle's teaching on the eternity of the world, the author in fact has hardly dealt with Aristotle at all, beyond summarizing his doctrine at the beginning of the essay and claiming that it was restricted to natural philosophy. He

⁶⁰ "Quidquid dicatur et quicumque conentur excusare Aristotelem, haec indubitanter fuit eius sententia, quod mundus est eternus et quod non coepit esse; et de motu similiter sensit. Et Avicenna post eum. Et adduxerunt rationes et probationes ad hoc. Similiter et alii expositores eiusdem Aristotelis idipsum senserunt atque fecerunt." *De universo*, pars 1, cap.8, cited by Faustino Prezioso, OFM, *De Aristotelis Creationismo secundum S. Bonaventuram et secundum S. Thomam* (Rome, 1942), p. 13.

⁶¹ Todi, Biblioteca comunale MS 121, fol. 131ra-va.

⁶² See I. Brady, "The Question of Master William of Baglione," p. 578, n. 6.

certainly sees Aristotle as no threat, and he includes traditional, non-Aristotelian material in his supposed discussion of Aristotle's opinions.

Albert the Great's writings on this subject indicate a firm confidence in Aristotle as a philosopher not dangerous to the faith, as well as a minimal interest in the question of the world's eternity. In his commentary on the *Sentences*, composed during the mid-1240s, he defended the Stagyrte against his accusers, showing a breadth of philosophical understanding not shared by many of his contemporaries. He conceded the force of the "footprint in the dust" and "the sun and its light" analogies reported by Augustine, but he realized that they did not imply that the world was uncreated: "It is not necessary that a cause should precede its effect by some quantity of duration, as is clear from two examples of Augustine."⁶³ He concludes, paraphrasing Maimonides:

Without doubt nothing is more probable even according to reason than that the world began, as Moses says; and this must be held by faith. But it is impossible that it began by motion and generation or that it might end through a motion toward another form or corruption into another matter. And this is all that Aristotle's arguments prove. Therefore, they conclude nothing contrary to faith.⁶⁴

⁶³ "Non est necesse quod causa causatum durationis quantitate praecedat: sicut apparet in duobus exemplis Augustini." *Commentarius in libros Sententiarum* II, d. 1, B, art. 10, *B. Alberti Magni Opera omnia*, ed. Borgnet (Paris, 1894), XXVII, p. 27a.

⁶⁴ "Absque dubio nihil probabilius etiam secundum rationem est, quam quod mundus inceperit, sicut dixit Moyses, et hoc fide tenendum. Sed hoc impossibile est, quod inceperit per motum et generationem: vel desinat per motum ad aliam formam, vel corruptionem ad aliam materiam: et hoc solum probant illae rationes, quae sunt Aristotelis: unde illae nihil contra fidem concludunt." *Op. cit.*, p. 29a. He is even more explicit in his paraphrase of the *Physica* 8, tr. 1. cap. 14, *ed. cit.* III, 555a-b: "In the *Physics* Aristotle is accustomed to give only physical conclusions that can be proved by physical arguments. But the beginning of the world by creation is neither a physical statement nor can it be proved by arguments of physics. And so it is thought that Aristotle was silent about this [other] way in physics and did not touch upon it expressly." I have borrowed the translation of James A. Weisheipl, "The Date and Context of Aquinas' *De aeternitate mundi*," *Graceful Reason: Essays in Ancient and Medieval Philosophy Presented to Joseph Owens*, CSSB, ed. Lloyd P. Gerson. *Papers in Mediaeval Studies* 4 (Toronto: Pontifical Institute of Mediaeval Studies, 1983), pp. 239-271.

Aristotle's teaching, he goes on, has been misrepresented, and those views attributed to him are in fact those of his commentators, which lead to heresy beyond a doubt.⁶⁵

He answers the heretical commentators by a statement in which he corrects Grosseteste's faulty Aristotelianism in the assertion that the non-being of the world is in the potency of the creator, by applying Averroes's explanation of Aristotle's term "potency":

To these we say that this is false that nothing begins to be except that which was earlier in possibility. But it is true in those things which begin to be through generation, if we presuppose the existence of matter. But concerning created things which begin through the will and choice of the potency of the creator, it is false, unless "possibility" be understood as that of the potency of the creator. But this is improper, because according to the philosophers, nothing is in potency according to the efficient cause, but according to the matter disposed in some way toward that form to which it is said to be in potency. Because the Commentator gives the rule in *Metaphysica* 9 that nothing is in potency in another thing except that which is brought forth from that thing by one mover, as a statue is in potency to the copper because it is brought forth by the mover of the art.⁶⁶

So Albert thought it probable, though not necessarily demonstrable, that the world began, i.e., that time had a beginning. But it was certain that it did not come into being by natural processes, and Aristotle's teaching concerned only these.

Strongly influenced by Alexander of Hales is the question *De erroribus circa durationem rerum exeuncium* of Odo Rigaldus.⁶⁷ Although there is more patent Aristotelianism in Odo's treatment than we have so far

⁶⁵ "Et per hoc patet solutio ad omnia illa quae sunt adducta usque ad quartam viam, quae non est Aristotelis, sed Commentatorum qui absque dubio haereses induxerunt." *Loc. cit.*

⁶⁶ "Et ad illam dicendum est, quod haec est falsa. Nihil incepit esse nisi quod ante est in possibilitate. Sed vera est in his quae incipiunt esse per generationem supposita materia. De creatis autem quae incipiunt per voluntatem et electionem creantis, falsa est: nisi intelligatur possibilitas potentiae creantis: sed hoc est improprie: quia nihil proprie secundum Philosophos est in potentia secundum causam efficientem, sed secundum materiam ordinatam aliquo modo ad formam illam quam esse dicitur in potentia: quia dat regula Commentator super nonum *primae Philosophiae* quod nihil est in potentia in alio, nisi quod uno motore artis educitur de illo: ut idolum in cupro in potentia, quia motore artis educitur." *Op. cit.*, p. 29a-b.

⁶⁷ Odo Rigaldus, *De erroribus circa durationem rerum exeuncium*, Bruges, Stadsbibliotheek MS 208, fols. 194va-195va.

observed, it is nevertheless still largely dependent on Augustine for both the pro and con arguments, and it repeats or adapts many of the arguments we have already noted in the preceding works.

The question, as we have it, is clearly incomplete, since replies are given to arguments which have not been recorded. The first part of the work concerns the question whether some creature can be coeternal with the creator, while the second part investigates specifically whether the *primum mobile*, its motion, and time, the measure of that motion, can be coeternal with the creator.

In the first part, the arguments made by the *opponens* are, with one exception, ones we have encountered before. The first one of these is a variation of the "two means" argument: There is something which has neither a beginning nor an end, something which has a beginning and an end, and something which has a beginning but no end. So there should be a fourth differentia, namely something which lacks a beginning but has an end and is coeternal with God in the past. The second argument is that since a person (of the Trinity) can be coeternal with the person by which it was produced, it seems that an essence could be coeternal with the essence by which it was produced; and since even a creature, namely the sun, can produce an effect coeval with itself, surely God, who is a much more powerful cause, can produce a creature coeternal with himself.

Both of the preceding arguments are based on Augustine. The next is drawn from pseudo-Dionysius the Areopagite, but it is not a verbatim quotation, and in this somewhat garbled form it appears in numerous questions on the eternity of the world:⁶⁸ Good is self-diffusive; therefore

⁶⁸ Cp. Ps.-Dionysius, *De divinis nominibus* 4, 16: "[I]n omnia quae sunt extendit bonitatem" (versio Eriugena); "ad omnia existentia extendit bonitatem" (versio Sarrazeni). This citation is a good example of the oral, rather than written, transmission of authorities, which plagues all editors of medieval texts. Jacques Guy Bougerol, in his meticulous study, "Saint Bonaventure et le Pseudo-Denys l'Aréopagite," *Etudes franciscaines* 19 (1969), suppl. annuel, devotes an entire chapter, pp. 81-101, to this maxim and finds its origin, in this form, in Philip the Chancellor's *Summa de bono*. He lists its appearance in the works of William of Auxerre, William of Auvergne, Alexander of Hales, and Bonaventure. In addition to the places noted by Bougerol, we add the following: Philip the Chancellor, *Summa de bono*, *Ex Summa De Bono Philippi Cancellarii Quaestiones De Anima*, ed. Leo W. Keeler, S.J., Münster i.W., 1937, p. 68, ed. Wichi, I, p. 6; Alexander of Hales, *De duratione mundi*, ed. cit., p. 69; John Pecham, *Utrum mundus potuit fieri ab eterno*, ed. Ignatius Brady, "John Pecham and the Background of Aquinas's *De aeternitate mundi*," *St. Thomas Aquinas, 1274-1974. Commemorative Studies* (Toronto, 1974), pp. 141-78, on p. 165; Bonaventure(?), *Utrum mundus productus fuerit ab eterno*, ed. Toon van de Sande (Tilburg, 1983), p. 12; and Arlotto of Prato, *Utrum mundus sit eternus*, art. 1, 11, ed. Richard C. Dales, "Friar Arlotto of Prato on the Eternity of the World," *Collectanea Franciscana*, 56 (1986), p. 42.

the highest good will be maximally diffusive, and since the highest good has existed eternally, it has diffused itself eternally; therefore there was something to receive this diffusion.

The next argument exploits the identity of God and his attributes, and the final two are variations of the *creatio actio* and *creatio passio* distinction.

Odo's argument *ad oppositum* asserts that a creature, since it began to be, has its being after its non-being, and therefore cannot be eternal; and that no creature should exceed the creator in any condition of nobility, and since some creatures will possess equality of duration in the future, they dare not also possess equality of duration in the past. It ends by specifically condemning those who hold that God is prior to the world only by nature and not by duration.⁶⁹

His Responses to individual arguments are not noteworthy, but in his reply to the last, concerning the distinction between *creatio actio* and *creatio passio*, he employs wording which is reminiscent of the question of Alexander of Hales which we discussed above, but without the implication concerning the interpretation of Aristotle, when he points out that "creation does not come into being by means of another mutation, but it is itself the mutation by which other things come forth."⁷⁰

In the second part of the question, the arguments in behalf of the eternity of the world contain quite a bit of Aristotelian material, but Augustine's distinctions among the various meanings of "before" are also used, and it is interesting that Odo answers the argument (not recorded by the reporter) that Aristotle had called being the first thing among creatures by appealing to the commentary accompanying the pseudo-Aristotelian *Liber de causis* to the effect that Aristotle meant only that it was the broadest term one could use about creatures.⁷¹

Grosseteste's views were taken over by members of each of the great mendicant orders. Both Richard Rufus, a Franciscan, and Richard Fishacre, a Dominican, copied large segments of Grosseteste's essay on the eternity of the world from the *Hexaëmeron* into their commentaries on the *Sentences*, including the section quoted above, note 55, holding that time and eternity fall under different genera of measure, and that God precedes the world not by time, but by eternity; and Rufus also quotes the section from *De finitate* which we printed above, notes 56 and 57.

⁶⁹ "Illi autem qui posuerunt quod creator precederet natura, consequens est quod duratione in hiis aut inferioribus secus est, et ideo decepti fuerunt." *MS cit.*, fol. 195ra.

⁷⁰ "Ideo creatio non exit in esse alia mutatione, sed ipsa est mutatio qua alia exeunt." *MS cit.*, fol. 195rb.

⁷¹ Ps.-Aristotle, *Liber de causis*, prop. 2, 24, ed. Adriaan Pattin (Louvain, 1967), p. 51.

There are no traces of any original thought in the treatments of either of these men; they were content simply to paraphrase or copy verbatim.⁷²

In Vatican MS Ottobon. lat. 185, folios 187ra-va,⁷³ there is an extremely interesting brief gloss on Genesis 1:1: *In principio creavit deus caelum et terram*, which seems to represent an English tradition, indebted to a considerable extent but not exclusively to Robert Grosseteste, which was among the sources of Thomas of York and which would constitute an element of the Parisian discussions of Bonaventure and John Pecham and of the fourteenth-century Englishmen Henry of Harclay and William of Ockham. His literary style is strikingly similar to that of Grosseteste, although his mind is much inferior.

His purpose, he tells us, is to enable us to resist the arguments of the philosophers and heretics who wish to corrupt the soundness of the authentic truth. Among his major arguments, the first and basic one is that whatever is created from nothing must have a temporal beginning: Whatever is made from nothing has its being after its non-being, "and therefore the being of every made thing has a beginning of duration, namely at its non-being. Therefore, no such thing is perpetual."⁷⁴ The concluding section of the essay consists of a series of arguments based on alleged paradoxes of the infinite, similar to those used by Thomas of York and, in a much more developed form, by Bonaventure and Pecham, and like Pecham he uses letters of the alphabet to designate past and future time considered as wholes. The first argument is that everything that is past was once future (i.e., going to be), and so all of past time was once going to be and therefore had a beginning and is consequently finite in the past. The second has to do with the consequences of an infinite past for the doctrine of the human soul. A version of this argument, derived from Algazel's *Metaphysica* 1, 6, was a commonplace in discussions of the eternity of the world from Bonaventure onward, but our author does not seem to know of Algazel. Rather his discussion seems to be based on Grosseteste's remarks in his *Hexaëmeron* 1, 8, 7,⁷⁵ which Henry of Harclay

⁷² See Richard C. Dales, "The Influence of Grosseteste's 'Hexaëmeron' On the 'Sentences' Commentaries of Richard Fishacre, O. P. and Richard Rufus of Cornwall, O. F. M.," *Viator* 2 (1971), 271-300, on 274-77.

⁷³ This codex is written in a beautiful English gothic bookhand of no later than 1250. I am indebted to Fr. Servus Gieben for calling this work to my attention.

⁷⁴ "Ergo cuiuslibet facti esse terminatum est ex parte ante ad eius non-esse. Igitur cuiuslibet facti esse habet durationis initium, scilicet ultimum non-esse eiusdem. Igitur nullum factum perpetuum." Vat. MS Ottobon. lat. 185, fol. 187rb.

⁷⁵ "Preterea, si tempus infinitum precessit, necesse est aut animas a corporibus exutas actu esse infinitas, aut unam esse omnium animam, aut eas in alia atque alia reverti corpora, aut eas esse mortales; quorum quodlibet est impossibile." *Robert Grosseteste, Hexaëmeron*, ed. cit, p. 62.

designates as the origin of the argument.⁷⁶ And his final argument, again using letters of the alphabet to designate quantities, shows that the eternity of the world would deny the general resurrection of the dead, since infinitely many souls would have to share a finite amount of matter.

This is a naive work in many ways, but it foreshadows certain developments in discussions of the eternity of the world during the next two generations, especially among Englishmen and/or Franciscans. It assumes and tries to prove that what has been created from nothing must have had a beginning of duration; it exploits several apparent paradoxes of the infinite in order to disprove the possibility of an eternal world; it emphasizes the consequences of an eternal world for the human soul and the resurrection of the dead; and it assumes that the non-eternity of the world can be (and has been) proved by sure demonstrations.

A more comprehensive and learned treatment was given the subject by Thomas of York. In his *Sapientiale*, written between 1253 and 1256, Thomas admirably and dispassionately summed up the state of the question in mid-century, in a chapter entitled: "To Establish Aristotle's Meaning Concerning the Proofs Which He Brought Forth for the Eternity of the World; and To Distinguish the Opinions About the Question; and To Respond to the Arguments Adduced for the World's Eternity."⁷⁷

He introduces the chapter with a review of opinions on the eternity of the world, using Maimonides and Averroes as his authorities for Aristotle's doctrine and Themistius (via Averroes) for Plato's. He begins with an explicit citation of Maimonides's contention that Aristotle did not claim to have provided proofs that the world was eternal but considered his arguments only to be more probable than those of the other side; that philosophical considerations lead to the acceptance of his position; and that it is true that his opinion is closer to the truth with respect to the arguments concerning the order of nature.

From this he moves on to Averroes's summary of the four principal views on the question in his commentary on *De caelo et mundo* 2, 16:

The first of these is the belief that the world is neither generable nor corruptible, and he says that this was the view of Aristotle,

⁷⁶ "Ad 4, de infinitis animabus, dicendum quod hec ratio non est nova, sed antiqua, Lincolnensis enim, ut supra, facit eam, probans per hanc mundum non potuisse fuisse ab eterno." "Henricus de Harclay, *Utrum mundus potuit fuisse ab aeterno*," *AHDLMA* 51 (1983), 223-55, on p. 242. See also Richard C. Dales, "Robert Grosseteste's Place in Medieval Discussions of the Eternity of the World," *Speculum* 61 (1986), 544-63, esp. pp. 557-58.

⁷⁷ Edited by E. Longpré, "Thomas d'York et Matthieu d'Aquasparta," *AHDLMA* 1 (1926), 269-308.

who was the first to state it. ... The second is the belief that the world is generable and corruptible, and among the philosophers this was the view of Anaxagoras, and the three laws of the Muslims, Christians, and Jews hold it. The third is Plato's, who says that it is generable but not corruptible. The fourth is the belief that it is not generable, but it is corruptible, but no one teaches this.⁷⁸

He then quotes Themistius (from Averroes's commentary on *De caelo et mundo* 3, 5) to show that Plato's doctrine is consonant with the opinions of the Christians, except that he posited that the disordered state had existed from eternity, while the Christians say it came to be in time.

Thomas then proceeds to give a series of arguments which owe much to the preceding anonymous author, purporting to demonstrate the impossibility of the world's being without a beginning. First he proves that nothing can give being to itself; therefore it is preceded by the efficient cause which brought it into being, and so it was after it was not.

His second argument is a restatement, but not an improvement, of Grosseteste's contention that the non-being of the world is located in eternity:

Everything whose non-being preceded its being is terminated in the past at its non-being. This is required by the definition of procession and of first and last termini, where the last of one is the beginning of another. Likewise, in everything which is brought forth from non-being into its being, its non-being preceded its being by some manner of precession. But to be terminated at its non-being, and for being not to precede, cannot be except either by the duration of time or of eternity. It cannot be in the first way, because time does not exist except with being, but eternity can exist with non-being. Therefore, its non-being preceded its being by the duration of eternity. Therefore, its being was not made from eternity.⁷⁹

⁷⁸ "Quarum prima est credere ipsum nec generabilem nec corruptibilem, et hanc dicit esse Aristotilis, qui primus fuit dicens. ... Secunda est credere ipsum generabilem et corruptibilem, et hoc est Anaxagore ex philosophis, et hanc tenere dicit tres leges maurorum, christianorum, et iudeorum. Tertia est Platonis, qui dicit ipsum generabilem et non corruptibilem. Quarta est credere non generabilem sed corruptibilem; sed hoc nullus dixit." *Ed. cit.*, p. 279.

⁷⁹ "... omne id cuius non-esse praecessit sui esse ipsius est terminatum ex parte ante ad eius non-esse; hoc enim vult ratio processionis et termini ultimi et initii, ubi ultimum unius est initium alterius. Item, in omni eo quod est deductum a non-esse in esse eius non-esse praecessit suum esse aliquo modo praecessionis; terminari autem ad non-esse et non praecedere esse non potest esse nisi aut duratione temporis aut aeternitatis; priori modo non potest esse, quia tempus non est nisi cum esse, aeternitas

This is followed by a very weak argument, citing Averroes *In De caelo et mundo* 1 and Aristotle *Physica* 3 and 4, holding that whatever has an extreme point is finite, that the whole past time up until now has the present instant as an extreme point, and "therefore the whole time preceding this instant is finite; which could not be if time was from eternity, since then it would be infinite." Next comes an argument based on the Aristotelian dictum that the infinite cannot be traversed,⁸⁰ quite similar to one Bonaventure used in his commentary on the *Sentences*:⁸¹

Furthermore, according to the same definition, it seems to follow that the motion of the sky is finite, because it has a last revolution, which is now; for it is impossible for infinite revolutions to have preceded this last revolution, since it seems to be impossible that in the same subject infinite motions would succeed themselves, since then its measure would be present time or itself, and then it has an extreme point and is therefore finite.⁸²

And finally, he uses the device of treating all past time and all future time as wholes designated by letters of the alphabet, which would later be used with telling effect by John Pecham:⁸³

Whatever was future had a beginning. But everything which was made was future, according to Cicero *De divinatione* 1, 13, for nothing was made which was not future. Therefore, everything which was made had a beginning. Or thus: Whatever was future had a beginning. Every past thing was future. Therefore, every past thing had a beginning. Let A be all past time. It will either be finite or not. Therefore, I say: Whatever was future had a

autem potest esse cum non-esse. Quare duratione aeternitatis praecessit non-esse esse. Non est igitur esse factum ab aeterno." *Ed. cit.*, p. 288.

⁸⁰ Aristotle, *Physica* 3, 6 (207a).

⁸¹ Bonaventure, *Comm. in Sent.* 2, dist. 1, art. 1, q. 2.

⁸² "Praeterea secundum eandem rationem videtur sequi quod motus caeli finitus est, quia ultimam habet revolutionem, quae nunc est; ipsa enim est ultima revolutionum omnium quam impossibile est praecedere revolutiones infinitas, quoniam impossibile videtur esse quod in eodem subiecto succedant sibi motus infiniti; unde, cum mensura eius sit tempus praesens sive ipsa, et tunc extremum habet, quare finitum est." *Ed. cit.*, p. 290.

⁸³ See I. Brady, "John Pecham and the Background of Aquinas's *De aeternitate mundi*," p. 171.

beginning. Every past thing was future. Therefore, every past thing had a beginning. And therefore A is not infinite in the past.⁸⁴

It is clear from this that Thomas of York was not a thinker of the first rank. Nevertheless, this essay provides an excellent insight into the state of the question at mid-century. It had become customary to review the three main opinions on the subject; the old arguments continued to be used, but Aristotle, Averroes, and Maimonides are playing an increasingly prominent role among the authorities; the viewpoints of both Alexander of Hales and Grosseteste have become part of the tradition; and the earliest infinity arguments have made their appearance.

Conclusion

In the late 1220s, the earliest theological questions on the eternity of the world were composed. They arose out of the various works of Augustine and the *De consolazione philosophiae* of Boethius and were occasioned, it would seem, by Peter Lombard's assertion of the finitude of the world near the beginning of Book 2 of his *Sententiae* and not initially by the views of Aristotle or the Arabs. These questions were of two types, one investigating the relationship of time to eternity, the other asking whether the world was, or could be, eternal. Both types would persist throughout the century, although the latter would become much more important.

Many of the stock arguments, both pro and con, had already been devised during the decade of the 1230s: arguments concerning a change in the divine will, God's ability to create something without a beginning (if the Son, why not the world?), that an eternal sufficient cause should produce an eternal effect, the self-diffusiveness of divine goodness, that there should logically be a substance which lacks a beginning but will have an end (the "two means" problem), the "same now or different now" problem, whether God could have created the world before he did, the

⁸⁴ "Quidquid fuit futurum, habuit initium; sed omne quod factum est, fuit futurum secundum quod dicit Cicero *De divinatione* I, c. 13, nihil enim factum est quod non fuit futurum; igitur omne quod factum est habuit initium. Vel sic: quidquid fuit, habuit initium; omne praeteritum fuit futurum; igitur omne praeteritum habuit initium. Sit igitur A totum tempus praeteritum; sive fuerit finitum sive non; dico igitur: quidquid fuit futurum habuit initium; omne praeteritum fuit futurum; igitur omne praeteritum habuit initium; A est praeteritum, igitur habuit initium, quare non est A infinitum ex parte ante." *Ed. cit.*, p. 291.

distinction of the various meanings of "before," and the Lord-servant relationship. And two serious equivocations, one on the meaning of eternal, the other on the meaning of "from nothing," had already become established elements of the tradition.

Two radically opposed interpretations of Aristotle's doctrine arose during the second half of the decade, one (of Philip the Chancellor and Alexander of Hales) attempting an accommodation to Christianity, the other (of Robert Grosseteste and William of Auvergne) insisting that Aristotle's teaching was heretical. During the 1240s and 1250s Aristotle's natural philosophy became a much more noticeable feature of the debates, but the older arguments and the replies to them still maintained their place. And both sides were quite willing to acknowledge Aristotle and Averroes as authorities when it suited their purposes. We continue to find the eternity of the world discussed in the works of Albert the Great, Odo Rigaldus, Thomas of York, and the anonymous master of Todi MS 121 with increasing sophistication but with little sense of urgency. As late as the questions of Eustace of Arras (1268-69), it was still possible to discuss the matter with a measure of civility.⁸⁵

About the time that Thomas of York was completing his *Sapientiale*, two brilliant young friars of different temperments, Bonaventure and Aquinas, were engaged in writing their commentaries on the *Sentences*. Although each of these men would become the leading spokesman for opposing factions twenty years hence, each took a tentative position on the question of the eternity of the world at this early stage of his career. Both were well within the established tradition of thought on the eternity of the world, and although they would develop new potent arguments to defend their respective positions, each was also heavily indebted to the thought of the period between *ca.* 1229 and 1255, during which it became traditional to debate the question of the world's eternity and during which most of the basic positions and many of the standard arguments were developed.

By the middle of the century then, although the eternity of the world had been featured among theological questions for the preceding thirty years, with the exception of Robert Grosseteste, no one seems to have become particularly exercised over it. An external stimulus was required for the question to become a central issue, dividing philosophers from theologians and theologians from each other.

⁸⁵ See Richard C. Dales and Omar Argerami, "Eustachii de Arras, *Quaestiones septem de aeternitate*," *AHDLMA* 55 (1986), 111-137 and 56 (1987), 59-102.

CHAPTER SIX

THE DECADE OF THE 1250S

During the early 1250s, there were three young friars, one Franciscan and two Dominicans, composing their commentaries on the *Sentences* at Paris. Of these, two, Bonaventure and Aquinas, would become saints, and the third, Peter of Tarentaise, would become pope as Innocent V. All three composed questions on the eternity of the world and discussed it in their *Sentences* commentaries. The arguments of Bonaventure and Aquinas would have far reaching consequences, while those of Peter of Tarentaise are important primarily in showing that philosophical and theological views were still independent of membership in an Order.

Bonaventure and Aquinas were both well within the established tradition of opinions on the eternity of the world. For example, they both agreed that the world was not in fact eternal and that it was heretical to believe otherwise; they both admitted the validity of the distinction between the laws of nature and miraculous acts of divine power; and they both agreed that Aristotle had discussed the eternity of the world only from the standpoint of physical laws and hence taught nothing contrary to the Christian faith. Bonaventure did not explicitly claim that the non-eternity of the world could be demonstrated;¹ and Aquinas did not yet hold that an eternal world was an actual possibility.² But there were inconsistencies and disagreements within the tradition, and the prior education and personal predilections of the two men led them to emphasize different aspects of it, and eventually to disagree absolutely on a point of crucial importance, namely whether a beginningless world created from nothing implies a contradiction, so that it would have been impossible for God to have made it thus even if he had so chosen.

¹ Although this is not the common interpretation of Bonaventure's doctrine, it is convincingly argued by Steven E. Baldner, "St. Bonaventure and the Temporal Beginning of the World," *The New Scholasticism* (forthcoming). I am obliged to Prof. Baldner for making a copy of his article available to me prior to its publication.

² See John F. Wippel, "Did Thomas Aquinas Defend the Possibility of an Eternally Created World? (The *De aeternitate mundi* Revisited)," *Journal of the History of Philosophy* 19 (1981), 21-37; and James A. Weisheipl, OP, "The Date and Context of Aquinas' *De aeternitate mundi*," *Graceful Reason: Essays in Ancient and Medieval Philosophy Presented to Joseph Owens*, CSSR, ed. Lloyd P. Gerson, 239-71.

Bonaventure shared the almost universal opinion of his contemporaries that it is impossible for anything which is made from nothing to be without a temporal beginning, since if it was made from nothing, it was after it was not. We have noted this opinion, often treated as though it were axiomatic, from the time of William of Durham onward. But Bonaventure had a clear grasp of Boethius's concept of the simplicity of eternity, and so avoided the confusion of eternity and beginningless, endless time, which was almost as widespread.

Bonaventure, like Thomas and all the authors of the thirteenth century, discussed the question because it grew out of the text of Lombard's *Sentences*, but he seems to have placed a more than customary importance on it. Toon van de Sande has recently edited a question, *Utrum mundus productus fuerit ab aeterno*, which he attributes with some slight hesitation to Bonaventure.³ It is completely traditional, exhibiting none of the novel and potent arguments contained in his commentary on the *Sentences*. It used Augustine's argument from *Liber de diversis 83 quaestionibus* regarding the equality of the Father and the Son;⁴ the garbled version of ps.-Dionysius, *De divinis nominibus* 4, 16 holding that good is self-diffusive;⁵ the Aristotelian dictum that "*esse et posse non differunt in perpetuis*";⁶ and the arguments involving relations: that if God is an agent *ab aeterno*, then the result of his activity must be eternal, and the similar argument using the *creatio actio* and *creatio passio* distinction.⁷

But by the time he was writing his commentary on the *Sentences* (ca. 1250-1255), Bonaventure placed a much greater importance on the question of the eternity of the world, which he treats in two places, book 1, d. 44, art. 1, q. 4 and book 2, d. 1, art. 1, q. 2, in both of which he depends as much on Aristotle as he does on Augustine.

In the first of these places, which has only been slightly commented on in studies of Bonaventure's thought, he treats the old question, much debated in antiquity⁸ and during the preceding generation, derived from Augustine's *Confessions* 12, 29, of whether God could have made the world older than he did, either without a beginning or with an earlier beginning. After summing up the arguments on both sides, he responds that this can either mean that the world was without a beginning and

³ Toone van de Sande, ed., *Quaestio est, Utrum mundus productus fuerit ab aeterno: toegescheven aan Bonaventura* (Tilburg, 1983).

⁴ Augustine, *Liber de diversis 83 quaestionibus* 50.

⁵ See above, chapter 5, n. 68.

⁶ Aristotle, *Physica* 3, 4 (203b).

⁷ See above, chapter 5, p. 68.

⁸ See Richard Sorabji, *Time, Creation & the Continuum*.

thus older, or older than it is but by some finite amount. The first of these he disposes of quickly:

I believe the first way to be impossible simply speaking because it implies a contradiction. For because it is posited as being made, it is posited as having a beginning. But what is posited to be eternal is posited not to have a beginning. Whence, this is the same as to ask whether God would have been able to make the world earlier in such a way that the world in having a beginning would not have a beginning. And this includes both parts of a contradiction.⁹

In this argument, he betrays the blind spot we have called attention to so many times previously, and which so annoyed Aquinas, understanding *principium* to mean both a beginning in time and a principle on which the world depended. But the quality of his argument improves as he continues, using Augustine's doctrine that time began with the world and the analogous Aristotelian doctrine of place:

Similarly, regarding the second sense, it has seemed impossible to some people because it implies a contradiction, since earliness or age begin together with time, for in eternity there is not before and after. And time begins of necessity together with the world, just as location begins together with place, and place [begins] with the first sphere. And so there would be no question at all if someone asked whether the first sphere could have been made higher. Indeed, it implies a contradiction, namely that there is a place outside all place. (And this arises from a false imagination, because one imagines the whole world to be in a spatial location, as we imagine the earth to be surrounded by water.) Analogously, one must understand that there is an implication of contradiction in the proposition under discussion. It too arises from a false imagination because we imagine that before the beginning of the world there was a duration of time, in which the world could have been made earlier. And, just as, if it were asked whether the whole world could have been made outside the whole world, or above it or within it, it is a stupid question and implies opposite things, and comes from a false imagination. ... The reason for this

⁹ Bonaventure, *Comm. in Sent.* 1, d. 44, art. 1, q. 4: "Primum credo impossibile simpliciter, quoniam implicat in se contradictionem. Ex hoc enim, quod ponitur fieri, ponitur habere principium. Ex hoc autem, quod ponitur aeternus, ponitur non habere principium. Unde idem est quaerere, utrum Deus potuerit ante mundum facere, quod mundus habendo principium non haberet principium; et hoc includit contradictionis utramque partem."

false imagination is that since we imagine eternity to have been *ad infinitum* before time, we understand it as if it were extended duration in which there are diverse "nows," in any one of which time could have been made. But this argument amounts to absolutely nothing, because eternity is an utterly simple "now," in which there is absolutely no diversity. Therefore it must be granted, as the arguments adduced for it prove, that, just as he could not make the world in another place, because it is not in a place, thus he could not have made it earlier, because there is no antiquity except in it.¹⁰

Bonaventure does, however, see a way in which God could have made the world in a greater place or at an earlier time. He makes a distinction between the two cases. God could have placed the heaven at a greater distance from earth while preserving the natures of both. "But if God is understood to have brought it about that this 'now' should be farther from the beginning of time, then this 'now' is understood to be another 'now,' because even if the world should be understood to have been made earlier, it would still not be older with respect to this 'now,' because it would only be as far from the beginning as it is, and thus it would not be older."¹¹

This brings him to his extremely imaginative conclusion:

¹⁰ *Ibid.*: "Similiter quantum ad secundum sensum videtur aliquibus impossibile, quia implicat in se oppositionem, quoniam anterioritas sive antiquitas incipit simul cum tempore. Nam in aeternitate non est ante et post; et tempus incipit de necessitate simul cum mundo, sicut situs incipit simul cum loco, et locus cum orbe primo. Unde sicut, si quaeretur, utrum primus orbis potuerit fieri altior, nulla esset omnino quaestio, immo implicat contradictionem, scilicet extra omnem locum esse locum -- et venit ex falsa imaginatione, quia imaginatur totum mundum esse in locali spatio, sicut imaginamur, terra circumdari aqua -- similiter intelligendum in proposito, quod est implicatio contradictionis; et venit ex falsa imaginatione, quia imaginamur ante principium mundi fuisse durationem temporis, in qua mundus potuisset ante fieri. Unde sicut, si quaeratur, utrum totus mundus potuisset fieri extra totum mundum, vel supra, vel infra fieri, stulta est quaestio et implicans opposita et veniens ex mala imaginatione. ... Ratio autem istius malae imaginationis est: cum enim imaginamur, aeternitatem in infinitum ante tempus fuisse, intelligimus eam quasi durationem extensam, in qua sunt diversa nunc, in quorum quolibet potuisset fieri tempus. Sed hoc omnino nihil est, quia aeternitas est nunc simplicissimum, in quo nulla cadit diversitas. -- Concedendum ergo, sicut probant rationes inductae ad hoc, quod, sicut non potuit mundum facere in alio loco, quia non est in loco, sic nec ante, quia nulla est antiquitas nisi in eo."

¹¹ *Ibid.*: "[S]ed si Deus intelligatur fecisse, quod istud nunc magis distet a principio temporis, intelligitur illud nunc esse aliud, quia etiamsi intelligatur mundus factus ante, adhuc non esset antiquior respectu istius nunc, quia tantum distaret, quantum distat a principio; et ita non esset antiquior."

And therefore this position should not be simply denied or simply granted, any more than the proposition that God was able to make the world larger. For if you understand this absolutely, it is false, as the first opinion holds, and unintelligible, and it implies a contradiction. But if you understand it on the basis of the concomitance of another place -- that is, because God could make another world embracing this one, in which a place could have greater or less size -- it is true. We must make the same judgment about its [possibly greater] age.

And therefore, if it is asked whether God would have been able to make the world earlier, we must draw a distinction regarding it as regarding the question whether God would have been able to make the world in another place, or elsewhere, because the adverbial determination can fall under the ampliation of the verb or outside it.

If under the ampliation of the verb, then it is true; and the sense is that God could make another place and put the whole world in it. For he could make a hundred such worlds and still have one embracing all the rest, and one in a greater place than another. Thus we must also understand as regards time, that God was able to make a time before this one, and to make the world in it.

In the other way, the adverbial determination can fall outside the ampliation of the word "can," and the sense is that God could make the world in another place, which is outside the world. And this implies a falsehood, because there is no place except within the world; and we must understand similarly about time.¹²

In this discussion, Bonaventure displays an impressive cosmic imagination, as well as genuine philosophical ability. He has appreciated the

¹² *Ibid.*: "Et ideo non est simpliciter neganda nec simpliciter concedenda, sicut nec ista: Deus potuit facere mundum altiozem. Si enim intelligas de hoc absolute, falsum est, sicut dicit prima opinio, et non intelligibile, et implicatio contradictionis. Si autem intelligas per concomitantium alterius loci, scilicet quia Deus potuit facere alium mundum amplectentem istum, in quo situm posset habere magis altum et minus, verum est. Similiter iudicandum de antiquitate. -- Et ideo si quaeratur, utrum Deus potuerit ante facere mundum, distinguendum est sicut et haec: utrum Deus potuerit facere mundum in alio loco vel alibi; quia adverbialis determinatio potest cadere sub ampliatione verbi, vel extra. Si sub ampliatione verbi, tunc est vera, et est sensus, quod Deus potuit alium locum facere et in illo mundum istum totum ponere. Potuit enim facere centum tales mundos, et adhuc unum complectentem omnes, et unum in loco altiori quam alium. Sic in tempore intelligendum est, quod Deus potuit facere tempus ante hoc, et in illo facere mundum.

Alio modo potest cadere adverbialis determinatio extra ampliationem de ly potest, et est sensus, quod Deus potest facere mundum istum in alio loco, qui est extra mundum; et hic est implicatio falsa, quia non est locus nisi intra mundum; et similiter de tempore intelligendum."

point of Augustine's discussion, upon which all questions of this type were based, he has grasped firmly the simplicity of eternity as taught by Boethius, and he has reasoned out the implications of these two concepts. This is the first treatment of the problem I have found which goes beyond Augustine's solution.

Although Bonaventure himself was convinced that to be without a beginning and to be created from nothing implied a contradiction, and he would use it again in book 2, he was aware that this contradiction was not evident to all (not only Maimonides and Albert the Great before him, but his contemporary Thomas Aquinas found it unconvincing). In any case, by the time he had reached book 2, d. 1, art. 1, q. 2, he had conceived, either from his own reading of Aristotle or perhaps from some indirect knowledge of John Philoponus's *De aeternitate mundi*,¹³ of a series of arguments based on apparent paradoxes of the infinite, going far beyond what we encountered in the anonymous author of Vat. Ottobon. 185 and Thomas of York, which showed that a beginningless world was impossible because it implies a contradiction. After summarizing the most important arguments for the eternity of the world, taken principally from Aristotle, Avicenna, Algazel, and Averroes, Bonaventure presents six arguments for the opposite position. Although we need not suppose that all these arguments were original with Bonaventure, in his Response he explicitly makes at least the sixth his own, and he also seems convinced of the efficacy of the others, which he calls *rationes ex propositionibus per se notis secundum rationem et philosophiam*." Since they were to have so great an influence on subsequent discussions, I give quite a full account of them here.

The first is that it is impossible for the infinite to be added to, since an addition makes something greater, and nothing can be greater than the infinite. But if the world is without a beginning, it has existed for an infinite time. Therefore its duration cannot be added to. But this is false, because a revolution is added every day. Therefore the world is not without a beginning. He then considers a possible evasion of this argument:

If you say that it is infinite only in the direction of the past but is actually finite at the present, and therefore in the direction in

¹³ Richard Sorabji, *Time, Creation & the Continuum* 202 has called attention to the close similarity between Bonaventure's arguments and those of Philoponus. It seems however that Philoponus's work was not translated into Latin during the Middle Ages. There remains the possibility that Bonaventure may have read an account of Philoponus's arguments in some Arabic or Jewish work, but if so, I have not been able to discover the avenue of transmission.

which it is limited [by the present] it is possible for it to be made greater, I can show that it is greater in the direction of the past, because, if the world is eternal, there are infinitely many revolutions of the sun. But for every revolution of the sun, there are twelve of the moon, and therefore more of the moon than of the sun. But there were infinitely many of the sun. Therefore, of infinities in the direction in which they are infinite, it is possible to find something greater. But this is impossible. Therefore, et cetera.¹⁴

The second holds that it is impossible for the infinite to be ordered, since every order proceeds from a first to a middle. Therefore, if there is no first, there is no order. But the duration of the world, or the revolutions of the sky, if they are infinite, do not have a first. Therefore they do not have an order. Therefore one is not before the other. But this is false. Therefore they must have a first.

The third, taken from Aristotle, asserts that the infinite cannot be traversed. To the possible evasions that infinite revolutions have not been traversed because there was no first, or that an infinite series could well be traversed in an infinite time, he asks whether some revolution or no revolution preceded today's by an infinite length of time. If none, they are all a finite distance from today, and therefore they are all finite and have a beginning.

If some revolution is infinitely distant, I ask about the revolution which immediately followed that one, whether it was infinitely distant. If not, then neither is the other infinitely distant, since there is a finite distance between both of them. But if it is infinitely distant, I ask the same question about the third and fourth, and so on to infinity. Therefore one is not further distant than another from today. Therefore one is not before the other. Therefore they are all simultaneous.¹⁵

¹⁴ Bonaventure, *Comm. in Sent.* 2, d. 1, pars 1, art. 1, q. 2: "Si dicas quod infinitum est quantum ad praeterita, tamen quantum ad praesens quod nunc est, est finitum actu, et ideo ex ea parte qua finitum est actu, est reperire maius, contra: Ostenditur quod in praeterito est reperire maius; haec est veritas infallibilis, quod, si mundus est aeternus, revolutiones solis in orbe suo sunt infinitae; rursus, pro una revolutione solis necesse est fuisse duodecim ipsius lunae: ergo plus revoluta est luna quam sol; et sol infinitus: ergo infinitorum ex ea parte qua infinita sunt, est reperire excessum. Hoc autem est impossibile: ergo etc."

¹⁵ *Ibid.*: "Si aliqua in infinitum distat; quaero de revolutione, quae immediate sequitur illam, utrum distet in infinitum. Si non, ergo nec illa distat, quoniam finita distantia est inter utramque. Si vero distat in infinitum, similiter quaero de tertia et de quarta et sic in infinitum: ergo non magis distat ab hac una quam ab alia: ergo una non est ante aliam: ergo omnes sunt simul."

The fourth argument assumes that it is impossible for the infinite to be grasped by a finite power, and that the world has never existed without a rational spiritual (created) substance, which would then have comprehended an infinite number of heavenly revolutions and their effects.

His fifth argument, taken from Algazel's *Metaphysica*,¹⁶ is that if the world were eternal there would be an actually infinite number of departed human souls. But it is impossible for an actual infinity to exist simultaneously. Therefore, et cetera.

His final argument, which we have met many times before and which he had used in the preceding question, is that it is impossible for that which has its being after its non-being to be eternal, since this implies a contradiction. But the world has its being after its non-being. Therefore it is impossible for it to be eternal.

Bonaventure's Response is interesting and a good deal more subtle than he is usually given credit for. It is worthy of note that the preceding question in his commentary was a proof of creation, which to Bonaventure meant creation from nothing, since all that exists is God and creatures, and God did not create the world out of his own substance. It is with this in mind that we must read the beginning of Bonaventure's Response. In it he first asserts that to maintain both that the world is eternal or eternally produced and that all things are produced from nothing is completely against truth and reason, "and I do not believe that any philosopher, no matter how small his understanding, has held this position." But he then assumes a more limited position and concedes that if the world were not made from nothing but from preexisting matter the absurdity would disappear (and so he implicitly abandons his infinity arguments). If one presupposes the eternity of matter, then the eternity of the world seems reasonable and intelligible. And he goes on to give the Platonic examples drawn from Augustine of the footprint in the dust from eternity, and the simultaneity of light and its effects, whether illumination or shadow. "In fact," he says, "this position is so reasonable that the excellent philosopher, Aristotle, has fallen into it, according to

¹⁶ See *Algazel's Metaphysics* 1, 6, *ed. cit.*, pp. 40-41. Although the same argument is alluded to by both Avicenna and Maimonides, it is nearly always cited from Algazel, and it became a commonplace in discussions of the eternity of the world from this point on, sometimes competing with Grosseteste's list of the impossible consequences of an infinite past for the human soul. See R. C. Dales, "Robert Grosseteste's Place in Medieval Discussions of the Eternity of the World," pp. 557-58.

what the saints allege, and his commentators explain, and his own words suggest."¹⁷

In the paragraph which follows, Bonaventure seems to accept only conditionally the interpretation, which he had undoubtedly learned from his teacher, Alexander of Hales, that Aristotle only meant to hold that the world did not begin by natural processes, but he concedes that if this was what Aristotle meant, he was correct. But he came to accept this interpretation without reservations as the years passed, for in his *Collationes in Hexaëmeron*, after denouncing the philosophical errors of those without faith and singling out the eternity of the world and the unicity of the active intellect as the most pernicious of these doctrines, he added that Aristotle may be excused for his teaching on the eternity of the world, since he was speaking as a natural philosopher about the natural world:¹⁸

But certain moderns say the Philosopher never held this position or intended to prove it,¹⁹ namely that the world did not begin at all, but only that it did not begin by a natural motion. Which of these is more true I do not know. But one thing I do know, that if he held that the world did not begin according to nature, his position is true, and his arguments taken from motion and time are valid. But if he thought that it began in no way, he was manifestly wrong, as has been shown above by many arguments. And it was necessary for him, in order to avoid a contradiction, to hold either that the world was not made or that it was not made from nothing. But in order to avoid an actual infinity, it was necessary that he posit either the corruption of the rational soul, or its unity, or its circulation,²⁰ and thus to destroy its blessedness. Whence his error had a bad beginning and a worse ending.²¹

¹⁷ Bonaventure, *Comm. in Sent.* 2, d. 1, pars 1, art. 1, q. 2: "[E]t adeo rationabilis, ut etiam ille excellentior inter philosophos, Aristoteles, secundum quod Sancti imponunt, et commentatores exponunt, et verba eius praetendunt, in hunc errorem dilapsus fuerit."

¹⁸ Bonaventure, *Collationes in Hexaëmeron* 7, 1, ed. Quaracchi, V, 365b: "De aeternitate mundi excusari posset, quod intellexit hoc ut philosophus, loquens ut naturalis, scilicet quod per naturam non potuit incipere."

¹⁹ For the identity of these "certain moderns," see above chapter 5, on Philip the Chancellor and Alexander of Hales.

²⁰ Cf. Grosseteste, *Hex.* 1, 8, 7, ed. cit., p. 62.

²¹ Bonaventure, *Comm. in Sent.* 2, d. 1, pars 1, art. 1, q. 2: "Quidam tamen moderni dicunt Philosophum nequaquam illud sensisse nec intendisse probare, quod mundus omnino non coeperit, sed quod non coeperit naturali motu. --Quod horum magis verum sit, ego nescio; hoc unum scio, quod si posuit mundum non incepisse secundum naturam, verum posuit, et rationes eius sumtae a motu et tempore sunt efficaces. Si autem hoc sensit, quod nullo modo coeperit, manifeste erravit, sicut pluribus rationibus ostensum est supra. Et necesse fuit eum, ad vitandam contradic-

In his replies to the arguments for the eternity of the world, Bonaventure answers the first two arguments by appealing again to the distinction, drawn from Maimonides's *Dux dubitantium*, between the operations of nature and the supernatural activity of God in making the world from nothing.

His reply to the third -- that an instant is the boundary between past and future, so there could never have been a first instant -- draws on Grosseteste's *De finitate motus et temporis*,²² denying the definition and asserting that there is a first instant of time just as there is a first point on a line.

In his answer to the fourth argument, he again concedes the propriety of speaking of time according to nature:

One may either speak of time according to its essence or according to its being. If according to its essence, then an instant is the whole essence of time. ... If according to its being, thus it began with the motion of variation -- that is to say, it does not begin through creation, but rather through the change of changeable things, and especially of the *primum mobile*.²³

His answer to the fifth argument denies that if God is the full and sufficient cause of the world, his failing to create *ab aeterno* would necessitate a change in his will, which is impossible. "For he willed from eternity to produce the world when he produced it, just as I now wish to hear Mass tomorrow."²⁴

In his reply to the final argument, drawn largely from Augustine, Bonaventure becomes abusive of his long-dead opponents and answers them by appealing to God's simplicity and omnipotence. But in all of this there is nothing to indicate that Bonaventure's opponents are contemporary theologians or philosophers. In fact, although he draws on a

tionem, ponere aut mundum non esse factum aut non esse factum ex nihilo. Ad vitandum autem infinitatem actualem necesse fuit ponere aut animae rationalis corruptionem aut unitatem aut circulationem; et ita auferre beatitudinem. Unde iste error et malum habet initium et pessimum habet finem."

²² *Ed. cit.*, pp. 261-63.

²³ Bonaventure, *Comm. in Sent.* 2, d. 1, pars 1, art. 1, q. 2: "[D]upliciter est loqui de tempore: aut secundum essentiam aut secundum esse. Si secundum essentiam, sic 'nunc' est tota essentia temporis. ... Si secundum esse, sic coepit cum motu variationis, scilicet nec coepit per creationem, sed potius per ipsorum mutabilium mutationem, et maxime primi mobilis."

²⁴ *Ibid.*: "Ab aeterno enim voluit producere tunc, quando produxit, sicut ego nunc volo cras audire missam."

variety of Greek and Arabic sources, his opponents are Augustine's contemporaries.

Bonaventure had clearly read and understood Grosseteste's *Hexaëmeron* and *De finitate*, taking from them the utter simplicity of eternity, the warning against the false imagining of space after space and time after time, the denial that the only way to conceive of an instant is as the boundary between past and future, the consequences of the eternity of the world for the doctrine of the soul, and the assertion that perpetuity is impossible. Most of his original arguments are attempts to demonstrate this last proposition on the grounds that it implies a contradiction. He seems also to have assimilated Grosseteste's doctrines that the *aspectus mentis* can rise no higher than the *affectus mentis*, and the purgation of the mind by the Christian faith, thus making it possible for the Christian to perceive philosophical truths which are obscured to those without faith. This, of course, was a central tenet of Bonaventure's thought, and while I do not claim that he owed it entirely to Grosseteste, he seems clearly to have been influenced by Grosseteste's words.

But his dependence on Aristotle should not be overlooked or minimized.²⁵ Bonaventure was certainly no anti-Aristotelian. The most important of his proofs of the impossibility of a beginningless world were based on Aristotle's investigation of the infinite, and Aristotle's doctrine of place was central to his answer to the question whether God could have made the world earlier. And he explicitly acknowledged that Aristotle's reasoning concerning the eternity of time, motion, and the world were valid within the context of natural philosophy.

Bonaventure's acceptance of his chair in theology, to which he had been appointed on October 23, 1256, was delayed for a year, like that of Aquinas, by a squabble within the university. By this time he had been elected Minister General of the Franciscan Order at an extremely troubled time in its history, and thus did not continue lecturing and disputing in the faculty of theology. But although he ceased to take part personally in the debates of the time, his views nevertheless had enthusiastic supporters and formed a large portion of the arguments of two generations of theologians, not all of them Franciscans, when they disputed the question *Utrum deus potuit mundum creare ab aeterno*.

Aquinas, on the other hand, would remain at Paris until 1259 and would return for a second regency in 1269. He was powerfully influenced by the views and attitudes of his teacher, Albert the Great, and

²⁵ Fernand Van Steenberghen, *Siger de Brabant*, p. 464, considers Bonaventure an Aristotelian in philosophy, and Steven Baldner, *art. cit.* also emphasizes Bonaventure's acceptance of Aristotle as a philosopher.

among these were a very high regard for the philosophy of Aristotle and the conviction that neither the eternity of the world nor its temporal beginning was truly demonstrable, although many strong reasons in behalf of the Christian position could be brought. At least three scholars in the recent past have remarked on how Aquinas's understanding of Aristotle influenced his own views on the demonstrability of the non-eternity of the world. Fernand Van Steenberghen accuses Aquinas of ignoring his own convincing disproof of the possibility of an actual infinity in *Summa theologiae* I, q. 7, art. 4 when he turned to a discussion of the possibility of a beginningless world.²⁶ John F. Wippel has carefully traced the changes in Aquinas's views over the years and has convincingly shown that only in *De aeternitate mundi* (1271) does Thomas explicitly assert that an eternally created world is possible.²⁷ And James A. Weisheipl, in what I believe was his last publication before his untimely death, attributed the change in Thomas's position to his careful study of the *Physica* in the process of writing his commentary on it, which convinced him that, contrary to his earlier view, Aristotle really had taught that the world was without a temporal beginning, and that this was a possible position.²⁸

Although Thomas's teaching on the subject was to some extent modified by the differing purposes of his particular works over the years, his position was stated in his commentary on the *Sentences* as it was to remain, except for the single point of whether an eternal world was an actual possibility.

In his commentary on the *Sentences* 2, d. 1, q. 1, art. 5, Thomas undertook a thorough discussion of the subject, which owes much to both Albert the Great and Maimonides. It summarizes arguments for the eternity of the world under four heads: the substance of the heaven, time, motion, and the agent or mover; and it gives specific attributions for each argument. But even though several of these arguments, such as the impossibility of a change in the divine will, the implication of a changed relation, and the comparison of temporal and eternal duration, had come originally from Augustine or Boethius, they are now referred exclusively to the philosophers.

In his *Sed contra* section, i.e., giving arguments against the eternity of the world, most of the arguments he presents are the same ones Bona-

²⁶ Fernand Van Steenberghen, *Thomas Aquinas and Radical Aristotelianism*, pp. 17-18.

²⁷ John F. Wippel, "Did St. Thomas Defend the Possibility of an Eternally Created World?"

²⁸ James A. Weisheipl, "The Date and Context of Aquinas' *De aeternitate mundi*," pp. 270-71.

venture had either devised or adopted in his commentary. First is the contention that whatever has its being from another must follow the cause of its being in duration and so could not always exist. Then comes the group of "paradoxes of the infinite" arguments from Bonaventure, including the one derived from Algazel that if the world were eternal, an infinite number of souls would now exist. And the last argument is related to the first, namely that since in God his nature and duration are the same thing, and everyone grants that he preceded the world by nature, therefore he must also have preceded it by duration.

It is clear that Thomas already knew Bonaventure's treatment of the question in his commentary on the *Sentences* and that certain things about it bothered him; most especially that Bonaventure seemed to imply that in his "paradoxes of the infinite" he had devised convincing arguments against the eternity of the world, thus leaving the faith open to ridicule if it should be proved that these arguments were sophistical; and to a slightly lesser extent Bonaventure's insistence that being created from nothing was inconsistent with existing from eternity. And so, although he repeated many of Bonaventure's arguments and gave his own versions of the traditional replies to the arguments for the eternity of the world, he warned that although their conclusions were true, these arguments were sophistical. He then added that the philosophers had already considered and rebutted all the *contra* arguments, and so he concludes with a presentation of the solutions of the philosophers, lest someone, relying on such arguments, should attempt unprepared to argue against those who hold the eternity of the world, mistakenly thinking that his arguments were demonstrations.

The question then was a real one to Thomas, with consequences which could be detrimental to the faith. He frames his Response in such a way as to emphasize the differences between the philosophers' views, which were "false and heretical," and the teachings of the Christian faith, and also to emphasize both the areas of agreement and disagreement between two groups of thinkers who defended the Christian position:

There are three positions on this question. The first is of the philosophers, who say that not only God but also other things existed from eternity, but in different ways. ... Nevertheless, they are all false and heretical.

The second opinion is of those who say that this world and everything except for God began to be after they had not been, and that God was not able to make the world from eternity, not because of his impotence, but because the world was not able to be made from eternity, since it was created. They also hold that the fact that the world began is not only to be held on faith but can also be proved by a demonstration.

The third position is of those who say that everything aside from God began to be, but nevertheless God could have produced things from eternity, so that the fact that the world began cannot be demonstrated but is held and believed through divine revelation. And this position rests on the opinion of Gregory. ... And I agree with this position, because I do not believe that a demonstrative reason for this can be devised by us, just as it cannot for the Trinity, although it is impossible for the Trinity not to exist. And the weakness of the arguments brought forth to prove it underlines this fact, because these have been considered and solved by those philosophers who hold the eternity of the world. And therefore [the assumption that these arguments are demonstrative] is turned rather to the derision than to the confirmation of the faith if someone, relying on such arguments, should think that he was proving the newness of the world against the philosophers.²⁹

He concludes by appealing to Aristotle's statement in the *Topica* that the eternity of the world is one of those difficult questions for which there are only probable arguments and to Maimonides's assertion in the *Dux dubitantium* 1, 17 that one cannot argue from the present condition of the world to the way it came into being.

Among the various arguments Aquinas gives in the course of this article, several are of interest in showing how he was indebted to, or differed from his predecessors and the debt owed him by some of his successors. We have discussed previously Grosseteste's location of the non-being of the world in eternity, in the sense that it existed (or non-existed) in the potency of the cause (i.e., God) to make it in time. This had been repeated or garbled by several subsequent thinkers. Although I have

²⁹ Aquinas, *Comm. in Sent.* 2, d. 1, q. 1, art. 5: "[C]irca hanc quaestionem est triplex positio. Prima est philosophorum, qui dixerunt, quod non solum Deus est ab aeterno, sed etiam aliae res; sed differenter: ... tamen omnes sunt falsae et haereticæ. Secunda positio est dicentium, quod mundus incepit esse postquam non fuerat, et similiter omne quod est praeter Deum, et quod Deus non potuit mundum ab aeterno facere non ex impotentia eius, sed quia mundus ab aeterno fieri non potuit, cum sit creatus: volunt etiam quod mundum incepisse, non solum fide teneatur, sed etiam demonstratione probetur. Tercio positio est dicentium, quod omne quod est praeter Deum, incepit esse, sed tamen Deus potuit res ab aeterno produxisse; ita quod mundum incepisse non potuit demonstrari, sed per revelationem divinam esse habitum et creditum. Et haec positio innititur auctoritati Gregorii ... Et huic positioni consentio: quia non credo, quod a nobis possit sumi ratio demonstrativa ad hoc; sicut nec ad Trinitatem, quamvis Trinitatem non esse sit impossibile; et hoc ostendit debilitas rationum quae ad hoc inducuntur pro demonstrationibus, quae omnes a philosophis tenentibus aeternitatem mundi positae sunt et solutae: et ideo potius in derisionem quam in confirmationem fidei vertuntur si quis talibus rationibus innixus contra philosophos novitatem mundi probare intenderet."

never seen any evidence to suggest that Aquinas knew Grosseteste's works, his own replies to this question assert essentially the same thing. In his reply to the argument that if the world were not eternal, a vacuum would have to have existed in the place where the world now is, which is impossible, he says that before creation, the world "did not exist, except in the potency of the agent."³⁰ And in replying to questions 11 and 12 concerning a change in God's will, he concludes, like Grosseteste, that the divine will "does not go forth from potency into act, but the effect which was in the agent in potency is made a being in act."³¹ And in his reply to question 7, he remarks that God preceded the world not only by nature, but also by duration, "not however by the duration of time, but of eternity."³² He seems to have considered this an important problem, since he took it up again in *Summa contra Gentiles* 2, 34 and *De potentia*, q. 3, art. 17. He does not, however, take this obvious opportunity to compare the "nows" of eternity and time in the traditional manner.

It is also interesting to see how differently Aquinas answers the objection that since an instant is the boundary between past and future, there could not have been a first instant. Whereas both Grosseteste and Bonaventure had made frontal attacks on the substance of the argument, Aquinas gives a purely formal rebuttal, showing that the argument is a *petitio principii*.

But he was much more interested in the problem of relations. In his reply to the eighth question on the implied change in God if he should go from being a non-creator to a creator, Thomas investigates the problem far more extensively than any of his predecessors, and leans heavily on Maimonides in his reply (the standard one) that "the newness of a relation does not depend on a change in the mover, but in the mobile."³³

Several of the arguments of the philosophers which he gives are of interest. Although he claims that he is giving these only so that a Christian debating one who holds the eternity of the world should not be caught unprepared, in fact he later accepts some of them in his *De aeternitate mundi*, and his statement of the case here seems sometimes to have been the point of departure for later, more highly developed arguments. He accepts the argument, here attributed to Avicenna, *Metaphys-*

³⁰ *Ibid.*: "[N]on erat nisi in potestate agentis."

³¹ *Ibid.*: "[N]on exit de potentia in actum; sed effectus qui erat in potentia agente, efficitur actu ens."

³² *Ibid.*: "Deus praecedit mundum non tantum natura sed etiam duratione: non tamen duratione temporis, sed aeternitatis." This phrase is purely Augustinian.

³³ *Ibid.*: "[N]ovitas relationis contingit non ex mutatione moventis sed ex mutatione mobilis."

ica, bolstered by Gregory, *Moralia in Job*, and illustrated by Augustine's example of the sun and its light from *De trinitate*, that being created from nothing is not incompatible with eternal existence. He takes this matter up again in *De potentia*, q. 3, art. 14, and he makes it a major feature of his *De aeternitate mundi*.

He gives rebuttals to all of Bonaventure's infinity arguments, several of which would be seized upon and developed by later thinkers, especially Henry of Harclay. Among the infinity arguments, one of the major questions was whether or not an actual infinity was possible. Certainly a simultaneously existing series of efficient causes could not be infinite and must be reduced to one ultimate cause. But a successive infinity might be possible, or even a series of accidentally ordered secondary causes, such as fathers and sons or workmen and tools. On the possibility of traversing an infinite past time, he is much more timid and less satisfactory than Henry of Harclay. One of Bonaventure's strongest arguments had been that if the world were eternal, then some day must be infinitely distant from today and that an infinite series must have been actually traversed in order to arrive at today. Thomas asserts that "traversal" can only be between two termini, and that as soon as one designates a specific year in the past, it is necessarily a finite distance from the present. Hence the assumption that there is some year infinitely distant from this year is false, and so the argument falls. However, he has only pointed out the error of assuming that if the world were eternal, there would be some day which is infinitely distant from today and has not faced directly whether it is impossible for the infinite to be traversed. Henry of Harclay, Thomas of Wylton, and William of Ockham would all do so and decide in the negative. But Thomas seems bothered most by Algazel's argument concerning infinite human souls, which alone among Bonaventure's paradoxes of the infinite implies an actually existing simultaneous infinite multitude. He discusses it inconclusively here, and he returns to it, again without solving it, in both the *Summa theologiae* Ia, q. 46, art. 2 and *De aeternitate mundi*.

Since Bonaventure and Aquinas had different opinions about the relation of faith and reason, it is difficult to compare them on the question of whether the eternity of the world can be demonstrated. Bonaventure did not consider that reason by itself, although it could be useful, was an adequate instrument for the attainment of truth. Aquinas, on the other hand, considered that reason, rightly used, was completely competent within its own sphere and that it would never contradict faith, although some articles of faith were above reason and could not be demonstrated. Bonaventure does not confine himself to philosophy in his consideration of the eternity of the world, although he uses it where it seems appropriate. Still, he has no inhibitions about bringing elements from revelation

or authority into his account. So, although he never claimed, or indeed implied, that he had strict demonstrations of the non-eternity of the world, he nevertheless felt that he had presented convincing and true discourses. Although creation *ex nihilo* is not strictly demonstrable, a Christian knows by faith that it is true, and so he must assume this truth, inaccessible to the philosophers, in arguing the subsequent question of whether a beginningless world is possible. But to a philosopher who denied the immortality of the soul and insisted that matter was eternal, he realized that his arguments had no force. It would have been necessary first to convert him to Christianity. But Aquinas looked at the matter differently. A true demonstration was valid to any rational human being, regardless of his religion or lack of it. What could be demonstrated was true, both in philosophy and religion. But articles of faith, though true, could not all be demonstrated (or disproved). So he says of the traditional arguments against the eternity of the world that although their conclusions are true, the arguments are sophistical. There were certainly some theologians at Paris who thought the non-eternity of the world was demonstrable, including Thomas's Franciscan contemporaries, Gilbert of Tournai and an anonymous disciple of Bonaventure. And we shall look at a much more aggressive and explicit exposition of that position in the next chapter in the questions of William of Baglione.

Peter of Tarentaise,³⁴ the third member of the group, was not a thinker of the first rank. He was a man of a moderate and conciliatory disposition, qualities which served him well as an ecclesiastical administrator, but which were of little use in the academic jungle of Paris. Indeed, even so innocuous a master as Peter had charges of heresy brought against him by an unknown antagonist,³⁵ charges which were so clearly contrived and incompetent that one must posit some non-doctrinal cause of the discord.

Although Peter was a Dominican and a friend of Thomas, he was theologically much closer to Bonaventure, and his question on the eternity of the world³⁶ is much like those of the earlier period (1220s to 1250),

³⁴ The basic work on Peter is *Beatus Innocentius PP. V (Petrus de Tarantasia O.P.)*, (Rome, 1943), by various authors. An interesting study of his views on divine infinity is the unpublished Licentiate thesis of Henry A. Kelly, S.J., *Peter of Tarantaise*, St. Louis University, 1960. I am obliged to Prof. Kelly for providing me with a copy of this work.

³⁵ See M.-H. Laurent, *Le Bienheureux Innocent V et son temps* (Vatican City, 1947), pp. 54-56 and Benedetto Smeraldo, *Intorno all'opuscolo IX di S. Tomaso d'Aquino: Pietro da Tarantasia, ha errato in theologia?* (Rome, 1945).

³⁶ The only known MS of Peter's *De eternitate mundi* was Tours MS 704, fols. 169r-173r, which was listed by P. Glorieux, *Répertoire des maîtres en théologie de Paris au XIIIe siècle* (Paris, 1933), I, 111. This codex was a casualty of World War II, having been burned in 1940. However, D. O. Lottin had previously made photographic copies. It was from these photographs, provided by the Rev. Dom. Hildebrand Bascour, that

repeating the old arguments as well as the new ones of Bonaventure, coming to the expected conclusions, insisting on the principle that if something was made from nothing, it must have had a temporal beginning in the past, and confusing simple eternity with infinite temporal extension.

His arguments *quod sic* are drawn primarily from Avicenna and Aristotle: 1- the incorruptibility of prime matter; 2- that which has no contrary is neither generable nor corruptible, and so the heaven is neither generable nor corruptible; 3- since an instant is the boundary of the past and future, there could not have been a first instant; 4- if the creator preceded the world by nature only, then when there was a creator, there was a world; 5- since motion is the eduction from potency to act, before any motion there was a preceding motion to bring about the change; 6- the generation of one thing is the corruption of another, so both are therefore eternal; 7- if one posits the sufficient cause, he must posit the effect, and so either the world is coeval with God or there was a change in God's will; 8- God either had the power to cause the world from eternity or he did not; if so, he caused it; if not, his power was imperfect.

In the arguments *ad oppositum*, the reasons of Bonaventure, including the argument from the impossibility of an actually infinite number of departed souls, derived from Algazel, play a large part.

The Response itself is brief and does little more than paraphrase Lombard, *Sentences* 2, d. 1. But the replies to the individual arguments are of some interest and show quite clearly the influence of Maimonides and Grosseteste. Most of the arguments drawn from Aristotle are rebutted by Maimonides's distinction between natural processes and creation. To the argument that God's going from non-creator to creator implies a change in him, Peter says that the new relation is caused by the change of only one of the terms, namely the creature.³⁷ And finally, he picks up a very interesting aspect of Grosseteste's thought on divine potency, although his expression is fraught with inconsistencies. In his reply to the assertion that God preceded the world either by nature or by duration, Peter responds that he does so in both respects, but by the duration of eternity, not of time. "Nevertheless, the 'before and after' is not founded totally in eternity, because eternity would then have the 'now' of time if both were founded in the same duration. But the priority is founded in

Omar Argerami prepared his edition "Circa Petri de Tarantasia Quaestionem 'De aeternitate mundi,'" *Patristica et Medievalia* 4 (1983), 74-84, upon which my remarks are based.

³⁷ "Dico quod nova relatio inter Deum et creaturam mutatione alterius extremi tantum, id est creaturae." *Ed. cit.*, p. 83, ll. 177-79.

eternity with respect to time which was going to be."³⁸ And in his reply to the argument concerning God's potency to create, he makes a two-fold distinction of "the act of divine potency: one intrinsic and immutable, such as will and knowledge, and to this his act is always conjoined; the other extrinsic, such as creation, and to this it is not."³⁹ In both these cases, it looks as though Peter had been reading Grosseteste's *De finitate* without fully understanding it. Certainly his own thought is thoroughly vitiated by his inability to conceive of eternity in a non-temporal sense, but he was not alone in this failing. In any case, Peter's position is clear evidence that in the mid to late 1250s, or perhaps as much as a decade later, when we know Peter was a regent in theology, doctrinal positions were not yet dictated by one's membership in a particular Order.

Sometime in the late 1250s or early 1260s, there was disputed at Paris a question which presaged much of the conservative argumentation on the eternity of the world for the next several decades. It was composed by a master, probably a Franciscan, who was greatly influenced by Bonaventure but who lacked the intellectual power and subtlety of the Seraphic Doctor and departed markedly from Bonaventure's position on a number of crucial points.⁴⁰ He held that the creation of the world out of nothing could be strictly demonstrated, and that a world eternal in the past is a philosophical impossibility since it implies the existence of an actual infinite. But he denies the distinction, so important in Bonaventure's thought, between *creatio actio* and *creatio passio*, holding, without much elaboration, the the two terms are simply different ways of denoting the same thing. But the crucial difference between the two men (despite a serious inconsistency on the part of the anonymous master, to which we shall turn shortly), and the distinction which would separate the true followers of Bonaventure, such as John Pecham, from the extreme conservatives, was the anonymous master's failure to make a distinction between philosophy and theology, especially in regard to method; and so he claims philosophical grounds for theological positions where none can be firmly established. It was this tendency more than

³⁸ "Non tamen illud prius et posterius fundatur totaliter in aeternitate, quia sic haberet nunc temporis, si fundaretur utrumque in eadem duratione; sed fundatur prioritas in aeternitate respectu temporis posterius futuri." *Ed. cit.*, p. 83, ll. 159-163.

³⁹ "Dico quod duplex est actus potentiae divinae: quidam intrinsecus et immutabilis, ut velle et intelligere, et huic semper coniunctus actus; quidam extrinsecus, ut creare, et huic non." *Ed. cit.*, p. 84, ll. 200-203.

⁴⁰ This work has been edited by Steven E. Baldner, *Four Hitherto Unedited 'Quaestiones' on Creation Attributed to St. Bonaventure*, unpublished Ph. D. thesis, University of Toronto, 1981, pp. 295-313.

any other which characterized the thought of the extreme faction in the decades to come.

This is clearly, however, a work of the pre-1266 era. The question to be debated is still whether the world is eternal, rather than whether God could have made it eternal, and it is still considered, as Albert the Great would shortly dub it, a very old one. The "philosophers" have not yet become an issue, and their doctrines are as likely to be cited on one side as on the other. Among the twenty-six arguments *quod sic* (i.e., that the world is eternal), the first is derived from the Gloss, the next seven are from the works of Augustine, the ninth is from Hilary of Poitiers, the fifteenth is the garbled version of ps.-Dionysius's *De divinis nominibus* 4, 16 that good is self-diffusive, the twenty-sixth is from Boethius's *De consolazione*, and only two, the twelfth and thirteenth, are based on Aristotelian teaching. Most of the arguments *contra* (i.e., that the world is not eternal) are taken from Bonaventure's *Sentences* commentary. Both the first and tenth are from Aristotle: the first that the infinite cannot be traversed; the tenth that in perpetual things *posse* and *esse* do not differ. In between are Bonaventure's paradoxes of the infinite, including the one derived from Algazel concerning an actual infinity of departed human souls, and the traditional argument that whatever has being after non-being cannot be eternal; and it ends with the assertion, also to be a hallmark of the extreme conservatives, that if the world were eternal, it would be equal to God in duration.

The master begins his Solution by saying that "we hold this faith and we understand by sure argument that the world began to be and was made in time and is not eternal."⁴¹ His first *certa ratio* is that it is necessary for whatever was produced by the first principle to have its entire being produced, both as regards matter and form. Further, it must be produced from nothing, in order to avoid an infinite regress. "And thus it is clear that to posit that the world was made by the first principle and is to be eternal is to destroy the principle: *de quolibet, affirmatio vel negatio*."⁴² The second is that whatever has being after non-being is variable and changeable and thus not eternal. Also, that which is variable and changeable must have an ordered progression, which is not possible for the infinite. "Therefore, to posit the world to be eternal is to posit it to

⁴¹ "[H]anc fidem tenemus et certa ratione comprehendimus, quod mundus iste incepit esse et factus est in tempore nec est aeternus. *Ed. cit.*, p. 303.

⁴² "Et sic manifestum est quod ponere mundum factum a primo principio et aeternum esse est destruere illud principium: *de quolibet, affirmatio vel negatio*." *Ed. cit.*, p. 303.

have being and non-being at once, to be changeable and unchangeable at once, to be at once finite and actually infinite."⁴³

He closes his Solution with an apparently inconsistent type of argument, which seems indebted to Grosseteste:

But let it be understood that God was before the production of the world from eternity and that afterward, without any change of himself, he produced the world in time. This is difficult to understand. See! This is a twofold stupidity. One is that you wish to understand this by a simple glance, which is given to holy, purified souls contemplating the eternal Word, in which all things are arranged from eternity, when you cannot even understand eternity except by a great elevation of the mind above itself. ... The other stupidity is that we wish to know that which it is not given us to know in this life, namely why God did not produce the world earlier. I answer: "Because he did not arrange things that it be made earlier." ... Why he arranged things [as he did] we shall perhaps know in the life to come. But we do not know here."⁴⁴

The Solution contains a serious internal contradiction, the first part claiming that we can know the truths of faith by demonstrative arguments, the second holding that in this life the human mind is not capable of understanding why God did things as he did them. His source, apparently Robert Grosseteste, had taught that one can perceive these things intuitively because of the elevation of the desire and gaze of the mind provided by the Christian faith. Our anonymous master, after first holding that we can prove these things by reason, then says that they are accessible only to the saints, and perhaps to us in the life to come.

Between 1259 and 1262, the Franciscan Gilbert of Tournai composed a very long work, the *Rudimentum doctrinae*⁴⁵ (left uncompleted) which

⁴³ "Ponere ergo mundum esse aeternum est ponere simul idem habere esse et non-esse, simul esse mutabile et immutabile, simul esse finitum et infinitum actu." *Ed. cit.*, p. 304.

⁴⁴ "Sed intelligetur quod Deus fuit ante mundi productionem ab aeterno et quod postea sine sui mutatione mundum produxerit in tempore. Istud est difficile intelligere. Videte, hoc est duplex stultitia. Una est quod tu vis intelligere istud simplici aspectu, quod datum est animabus sanctis, purificatis, contemplantibus illud verbum aeternum, in quo ab aeterno omnia sunt disposita, cum etiam aeternitatem non possis intelligere nisi per magnam elevationem mentis supra se. ... Alia stultitia est hoc quod nos volumus scire quod non est datum scire in via, scilicet, quare Deus non produxit prius mundum. Respondeo, quia prius non disposuit. ... Sed quare disposuit forte sciemus in patria; hic autem nescimus."

⁴⁵ A portion of this work has been edited and provided with a learned introduction by Servus Gieben, O.F.M.Cap., "Four Chapters on Philosophical Errors from the Rudimentum Doctrinae of Gilbert of Tournai, O. Min. (died 1284)," *Vivarium* 1 (1963),

provides us with a good insight into the doctrinal situation at Paris at that time. Gilbert was a self-confessed compiler, not an original thinker, who took it upon himself to write a comprehensive doctrinal encyclopedia, in which "though the errors of the philosophers are not just incidentally treated, they are embedded in a wide vision and detailed exposition of the final cause of knowing."⁴⁶ Although he seems to feel some slight uneasiness that these errors may deceive the immature, his *Rudimentum* exhibits none of the immediacy and urgency of the *De erroribus philosophorum* of Giles of Rome a decade later. A large part of his refutation of these errors is copied verbatim or paraphrased from Lactantius's *Institutiones divinae*⁴⁷ and his principal immediate modern source, at least for the eternity of the world, is Robert Grosseteste. From his text, it is not even clear that he had actually read the works of Aristotle.

His remarks on the eternity of the world are brief, derivative, and commonplace. He seems vaguely aware of the interpretation that Aristotle was only speaking as a natural philosopher, but he does not accept this.⁴⁸ And he concludes his warning with a paraphrase of Grosseteste: "Beware lest you should be contrary to the saints, who understood Aristotle's writings better and more fully than you see from his writings."⁴⁹ He then gives a lengthy citation of Hugh of St. Victor against the eternal return of the "great year," and concludes his treatment with a series of traditional arguments:

That eternal times cannot be is proved with complete clarity by the fact that every time had a beginning, and without contradiction it happens that everything which had a beginning once was not. Further, every past time was once present. But every time which was once present did not exist before it was present; otherwise, if it was always present, it is now the same as eternity. Therefore, if every past time once was present, there was once no time. And so

141-64.

⁴⁶ Gieben, *art. cit.*, p. 142.

⁴⁷ *Ibid.*, p. 145.

⁴⁸ "Erravit etiam Aristoteles circa mundum, quem posuit aeternum. Lege VIII *Physicorum* si forte recurras ad principia naturae, ut dicas eum intellexisse quia per naturam aut motum dicas nec incepisse mundum nec desitutum esse. *Ed. cit.*, p. 149.

⁴⁹ "Caveas ne sis contrarius sanctis, qui melius intellexerunt scripta Aristotelis et plura quam tu viderunt de ipsius scriptis." *Ed. cit.*, p. 149.

eternal times could not have existed, but before times there was eternity without time.⁵⁰

This is all he has to say on the subject in a work which, even in its uncompleted state, occupies 1200 columns of text.

So as late as 1260, the doctrine of the eternity of the world does not seem to have been causing any serious unrest in the Parisian arts faculty. No one in either the arts or theological faculties taught it as a fact. The distinction, made during the 1220s by William of Durham but stated much more fully by Maimonides, between the sciences of nature and theology, was widely accepted. Some dissenting voices had been heard, notably those of Robert Grosseteste and William of Auvergne, but Philip the Chancellor, Alexander of Hales, John of La Rochelle(?), Albert the Great, Aquinas, and Bonaventure himself explicitly accepted it. Much the same is true of the interpretation of Aristotle's teaching on the subject.

But a subsidiary question had arisen which in the decades to come would provide much of the disagreement, namely whether it is demonstrable that God could or could not have made the world eternal if he had chosen. And the views that being created meant having a temporal beginning, and that an eternal world would be equal to God in duration continued to be doggedly maintained by the majority of writers. The confusion regarding the meaning of eternity, whether Boethian simplicity or Aristotelian infinite temporal extension, was especially serious and vitiated the thought of many otherwise able men, as did the attempt to assign duration to a simple, atemporal being (i.e., God). So the stage was set for the eruption of serious hostilities if some external factor should occasion them, but there was certainly no necessity in this. The clash, when it came, seems to have been rather between men than between ideas, and was carried on only by the obfuscation of the ideas at issue.

⁵⁰ "Nam tempora aeterna esse non posse in hoc evidentissime comprobatur quod omne tempus initium habuit, et sine contradictione constat quod omne quod initium habuit aliquando non fuit. Amplius, omne tempus praeteritum aliquando praesens fuit. Omne autem tempus quod aliquando praesens fuit, antequam praesens esset nondum fuit; alioquin, si semper praesens fuit, non iam tempus fuit sed aeternitas. Si ergo omne tempus praeteritum aliquando non fuit, fuit quando nullum tempus fuit. Itaque tempora aeterna esse non potuerunt, sed erat ante tempora aeternitas sine tempore." *Ed. cit.*, p. 149.

CHAPTER SEVEN

THE DEVELOPMENT OF THE CONTROVERSY

After the composition of Gilbert of Tournai's *Rudimentum Doctrinae* in 1262, there is a period of four years to which we cannot assign any theological question on the eternity of the world. But when the issue was raised again in 1266, a new element had been added to the situation. In this year there was a serious clash between the arts and theological faculties at Paris, the first outbreak in what was to be a continuing conflict of jurisdictions and personalities. The leader of the masters of arts was Siger of Brabant, whose name appears for the first time in connection with this outbreak.¹

Some time before this, there had developed in the faculty of arts at Paris a group of masters who had progressed beyond the simple explication of the texts of grammar, logic, and the natural philosophy of Aristotle to a deep and enthusiastic appreciation of the philosophic life. They considered the pursuit of truth by reason to be the highest attainment possible to man, and they debated many questions drawn from the text of Aristotle in a way which seemed superficially, then and now, to reach conclusions contrary to the teachings of the Christian faith. But the modern tendency to dub them Latin Averroists or heterodox Aristotelians, or any other term which implies that they intended anything contrary to Christianity, must be resisted. The most acceptable term I have found to describe them is "independent philosophers,"² that is, men who claimed the right and competence of philosophy to investigate any question which is amenable to human reason in a way which is consistent with the categories and procedures of philosophy. Since faith is a kind of knowledge superior to reason, and since God can do things outside the course of nature if he chooses, the conclusions of reason may sometimes lead to different, but not contradictory, conclusions to the articles of faith. The works of these philosophers are often enough explicit on this point that we may assume this was always implicit.

¹ *Chartularium Universitatis Parisiensis* #383, p. 427.

² This denomination has the advantage of emphasizing the status of philosophy, which was essential to the quarrel, rather than authorities or doctrines, which were incidental.

We know nothing of the origins of this movement. The confirmation by pope Urban IV on January 19, 1263 of all the preceding condemnations and prohibitions of Aristotle's works suggests that the movement was already well developed by that date and was annoying some masters at Paris, whether artists or theologians. Opposition to it seems to have developed concerning those areas of overlap between the subject matter of philosophy and theology, particularly on the unity of the human intellect, God's knowledge of the particulars of creation, fatal necessity and the lack of freedom of the human will, and the eternity of the world. But I suspect that what really caused the trouble was the philosophers' assertion that philosophy was a higher calling than theology, and that what kept it going was jealousy concerning jurisdiction over subject matter. In any case, the insistence of the philosophers that they had a right to do their job aroused considerable consternation.

In the same year in which the fracas between the artists and theologians occurred, the Franciscan William of Baglione³ debated a question on the eternity of the world, which for the first time betrays not only immediate doctrinal concern, but considerable personal animosity. The positions against which William argues are not only those of the other masters of theology but also include several known to have been held by Siger of Brabant. William was sufficiently concerned with the subject of the eternity of the world that he composed three questions on it, or rather revised his original version twice. Fr. Ignatius Brady has edited the three versions,⁴ and it is upon his edition that I base my comments.

William's two earlier versions of the question are longer than any we have yet encountered. He does not economize by grouping his *quod sic* arguments under several heads but seems intent on displaying and countering every argument known to him in favor of the eternity of the world or its possibility.⁵ These include the traditional ones which we have met in nearly all previous questions, drawn from Augustine or Boethius as well as Anselm and Ps.-Dionysius, arguments taken from Avicenna, Algazel, Aristotle, and Averroes, and especially from Aquinas's commen-

³ The basic study of William is Ignatius Brady, O.F.M., "Questions at Paris c. 1260-1270 (cod. Flor. Bibl. Naz. Conv. soppr. B.6.912)," *Archivum Franciscanum Historicum* 61 (1968), 434-61, on pp. 454-61. I have accepted his dating and spelling of the author's name. The article is continued in *AFH* 62 (1969), 357-76.

⁴ Ignatius Brady, O.F.M., "The Questions of Master William of Baglione, O.F.M., *De aeternitate Mundi* (Paris, 1266-1267)," *Antonianum* 47 (1972), 362-71; part 2, *Antonianum* 47 (1972), 576-616.

⁵ Many of the same arguments appear, though with slightly different wording and in a different order, in the two longer versions of the question, but many are also different. All three versions seem clearly to have been carefully reworked by the author for publication.

tary on the *Sentences*, from which he derives some of the arguments of the philosophers. His arguments *contra* also draw freely on the earlier tradition, but many are taken from Bonaventure's commentary on the *Sentences*, especially the infinity arguments, and quite a few seem to be original attempts to counter Aquinas.

His attitude towards the philosophers is emotionally hostile, and he uses such phrases as *pueriles positiones*, *valde fatuum*, *duces errorum*, *illa venenosa distinctio*, and *absurdissimis erroribus* to express his contempt, and remarks that "it is not seemly that a theologian should have recourse to the errors of the philosophers."⁶ This would seem to be an oblique reference to Aquinas. Still, he is willing to borrow from the philosophers when it suits his purpose.⁷

Although the philosophers he mentions by name are Aristotle, the ancient Greeks discussed by Aristotle, and the Arabs, never his contemporaries in the arts faculty, the Parisian philosophical movement seems to have been in his mind, since in a theological question on the eternity of the world he manages to bring in the doctrine of the unicity of the active intellect, which he somewhat imprecisely identifies with the human soul,⁸ and he promises a separate question on that subject.⁹

His attitude towards Aristotle is ambiguous. On the one hand he twice repeats Bonaventure's concession that if Aristotle meant only that the world did not come into being by natural means, or that if by eternal he only meant that it was commensurate with the whole of time, then he spoke the truth but did not choose his words well.¹⁰ But William is more hostile to Aristotle in this regard than was Bonaventure and adds that in several places Aristotle seems to be asserting unequivocally that time, motion, and the world all lacked a beginning.¹¹ Still, he is much less

⁶ "Nec decet theologum ut recurrat ad errores philosophorum." *Ed. cit.*, 590.

⁷ For example, he uses among the arguments for his position Aristotle's statement in *Physica* 3, 4 (203b) that "*in perpetuis non differunt posse et esse*," and Aristotle's conclusion in the same book that the infinite cannot exist in act.

⁸ On the ambiguities in the definition of the human soul and the difficulty of relating it to the active intellect, see Fernand Van Steenberghen, *Thomas Aquinas and Radical Aristotelianism*, pp. 29-74.

⁹ "Ille error Commentatoris de unitate intellectus quaestione speciali inferius impugnatur." *Ed. cit.*, p. 604.

¹⁰ "Si sic intellexit Philosophus ubi locutus est de aeternitate mundi, verum dixit. Et hoc volunt aliqui extrahere ex verbis eius, maxime circa finem VIII *Physicorum*, ubi concludens quod intenderat dicit 'quod igitur [et] motus semper erat [et] omni tempore, et quod sit principium motus perpetui,' etc." *Ed. cit.*, p. 596.

¹¹ "Si alibi, ubi diffusius tractat de hoc, videtur tenere quod dictum est in secunda acceptione huius quod dico mundum esse ab aeterno, scilicet quod nec motus nec tempus, et sic nec mundus, habuerunt suae durationis initium." *Loc. cit.*

severe on Aristotle than he is on the other philosophers, especially Averroes.

William begins his Response in exemplary fashion by distinguishing the ways "from eternity" is used: that is, coeternal with God by unity of duration, as the Father and the Son are coeternal; by a conformity of duration in which the duration of the world lacks a beginning and one cannot posit that God exists without positing that the world exists; and because it "always was," in the sense that its duration is commensurate with the whole of time; and he makes it clear that he is discussing the question in the second sense as meaning "without a beginning."

Several of Grosseteste's *sententiae* have somehow got into William's treatise. In his reply to Aristotle's assertion that act is better than potency, he says that "because a creature, before it was made, exists only in the potency of the creator, nothing is acquired by the creator from the act of creating."¹² And he also repeats Grosseteste's assertion that the non-being of the world is in eternity, which he could have got from Thomas of York or other earlier Franciscans.

He wrestles unsuccessfully with the problem of how eternal and temporal duration are related, but in the process he suggests a solution which Eustace of Arras would treat much more thoroughly. He begins by saying that "although eternity is simple, it is nevertheless completely huge, so to speak, with regard to what it embraces, so that every duration is completely incomparable to it in this manner."¹³ But he cannot free himself from the notion that the duration of an atemporal being is unending time, and he ends this passage by saying that "although being and duration are the same in God, the inference is most true that what precedes by its eternity also precedes truly and properly by duration, so that there might be here both the order of nature and the order of duration."¹⁴ And in the next paragraph he continues the argument by saying that the contention that 'if the world were eternal, it would still not be equal to divine eternity because eternity is *tota simul*,' is false because, "although it would not be equal to him in simplicity, it would nevertheless be equal in simultaneous coexistence."¹⁵

¹² "... quia creatura antequam fiat tantum est in potentia Creatoris, nihil acquiritur creanti ex actio creandi." *Ed. cit.*, p. 611.

¹³ "Licet enim aeternitas sit simplicissima, tamen est ambitu, ut ita dicam, amplissima, ut omnino secundum hunc modum sit ei incomparabilis omnis duratio." *Ed. cit.*, p. 587.

¹⁴ "... licet sint idem in Deo esse et duratio, verissima est illatio(?): 'quod praecedit sua aeternitate, praecedet et vere et proprie duratione,' ut sit hic ordo naturae et ordo durationis." *Ed. cit.*, p. 588.

¹⁵ "... licet non aequetur in simplicitate, aequatur tamen in coexistenti similitudine." *Ed. cit.*, p. 588.

This led him to consider the concept of measure, and in this too his inadequacies may have inspired Eustace of Arras to investigate the problem more thoroughly. "The non-being [of the world]," William says, "is said to be measured by eternity, not because its [i.e., the world's] being exceeds it [i.e., eternity], but because it is deficient in being."¹⁶ He takes the matter up again a little later and makes a suggestion for a solution which would be taken up and expanded by Eustace: "Nevertheless it can be said that eternity is the measure of all things as something exceeding them and containing every duration."¹⁷

In the course of his reply to an old argument taken from Augustine as to whether, if God could have made the world earlier by any amount, he could have made it infinitely earlier, i.e., beginningless, William gives an interesting analysis of the properties of the infinite: "To that which is objected that God could have made the world before and before and thus to infinity, ... the infinite in act is concluded from the infinite in potency. ... If the world is posited from eternity, no addition can be made to the duration of the world in either direction, because without doubt that which is infinite in act is infinitely [so]. This is clear thus: If you take some finite quantity from the infinite, it still remains infinite. ... Therefore, there is no instance which is given of an infinity of even or odd numbers or of [infinite numbers] exceeding ten or a hundred, because truly one infinite includes and implies the other. For if it were infinite in act, it would be equal to divine immensity."¹⁸ It was an argument such as this which Henry of Harclay had in mind when, fifty years later, he argued for the other side.

In his answer to another old argument taken from Augustine, that the footprint in the dust from eternity is caused by but is not subsequent to the foot which made it, William suggests that perhaps Augustine passed over it because he did not think it deserved a reply; but he says this argument can be answered and offers two rebuttals. The first concedes

¹⁶ "Unde non esse aeternitate dicitur mensurari, non quia esse excedit, sed quia ab esse deficit." *Ed. cit.*, p. 610.

¹⁷ "Verumtamen potest dici quod aeternitas est istorum omnium mensura sicut excedens, et sicut <continens> omnem durationem." *Ed. cit.*, p. 613. I have written "continens" in place of Fr. Brady's "o... ad" by analogy to Eustace of Arras.

¹⁸ "Ad illud quod obicitur quod potuit Deus facere mundum ante et ante et sic in infinitum ... per infinitum potentia concludit infinitum actu. ... Si ponatur mundus ab aeterno, nulla potuit fieri additio ad durationem mundi ex aliqua parte, quia absque dubio quod est infinitum actu est infinities. Quod sic patet: si ab infinito tollas quaecumque <finita> adhuc remanet infinitum. ... Ideo nulla est instantia quae datur de infinitate numerorum parium et imparium et de excessu denarii et centenarii, quia vere una infinitas includit et infert aliam. Si etiam esset actu infinitum, adaequaretur divinae immensitati." *Ed. cit.*, p. 613.

quite a bit; he says that the example only proves that if God had wished to create the world from eternity, the world would have existed from eternity, but he did not so will and should not have. The second claims that the analogy is inexact because there is a subject matter, namely the dust, in which the footprint was made, and that the footprint is proportional and in its way coequal to its origin. But the contrary is true in the production of the world. Arlotto of Prato would later expand this rebuttal.

The shorter question, subsequent in order of composition if Fr. Brady's analysis is correct,¹⁹ does not aim for completeness, but rather for clarity. It hardly touches on whether the world is eternal but discusses primarily whether it is demonstrable that the world is not eternal. William has Aquinas even more obviously in mind than in the longer question, as well as the artists who had adopted the unity of the intellect, and he repeats and expands his earlier remarks, saying that "it is not seemly that a theologian take refuge in the blindness of certain philosophers or the Commentator, who absurdly posits that the intellect is one in all men, or Algazel, who does not reckon it illogical that separated souls are actually infinite."²⁰ He concludes that "not only is it demonstrable that the world is not eternal, but also that it could not be eternal. ... Therefore, just as totally efficacious arguments are not lacking for the highest mystery of the Trinity, as Richard says in book one of *De trinitate*, chapter 3, thus without doubt they are not lacking for proving that the world is not and cannot be eternal."²¹

Fr. Brady understands this question as the first shot in the battle which was to enliven the intellectual life of Paris for the next decade and indeed would not completely play itself out for over half a century. Whether this proves to be the case or not, this is the earliest question on the eternity of the world in the Parisian milieu which is openly adversarial, motivated by personal animosity as well as doctrinal differences, and in which abusive language is used. Thomas was not in Paris at the time,

¹⁹ Ignatius Brady, "The Questions of Master William of Baglione," part 2, pp. 589-81.

²⁰ "Nec ... decet theologum mendicare fugam ex caecitate quorundam philosophorum, sive Commentatoris, qui absurde posuit intellectum esse unum in omnibus, sive Algazelis, qui non habuit pro inconvenienti quod animae separatae essent infinitae actu." *Ed. cit.*, p. 369.

²¹ "Non solum autem demonstrabile est mundum non esse aeternum, sed etiam hoc, quoad aeternum esse non potuit. ... Unde, sicut ad probandum altissimum mysterium Trinitatis non desunt rationes efficacissimae, etsi nos lateant, sicut Richardus dicit in primo libro *De trinitate*, cap. 9, ita absque dubio non latent ad probandum non esse vel non posse esse mundum aeternum." *Ed. cit.*, pp. 370-71.

but he would return within two years to take up the argument in his own behalf.

In September of 1267, Bonaventure, now for ten years Minister General of the Franciscans, arrived in Paris, where he would remain until the end of May, 1268. During this time he preached two series of sermons, the *Collationes de decem praeceptis* and *Collationes de donis spiritus sancti*, in addition to several separate sermons, in which he denounced vehemently the independent use of philosophy without the light of faith and a number of specific errors of the various philosophers; and he even seems obliquely to have criticized Aquinas for his general stance *vis a vis* the philosophers. This series of sermons is traditionally seen as the beginning of the battle against the philosophers and their doctrines at Paris, resulting first in the condemnation of 1270 and finally triumphing in the much more extensive condemnation of 1277. But it is clear that the battle had begun before this and that Bonaventure was only speaking for a faction already much in evidence at Paris.

His attacks, for all their emotionalism, are much less extreme in the positions they take than was William of Baglione. Bonaventure certainly did not claim, either at this time or later, that one could give demonstrative arguments for all the articles of faith. Nor was he hostile to philosophy rightly used. The fundamental thrust of his arguments was that while philosophy was the pathway to the other sciences,²² and that even many questions of faith cannot be determined without it,²³ still if one remains at the level of philosophy alone he will necessarily fall into error unless he is aided by the light of faith.²⁴ And, apparently prompted by William of Baglione, he added that if a theologian imitates a philosopher in his method of inquiry, he too errs most seriously.²⁵ In all these sermons, Bonaventure is of course concerned with many questions besides the eternity of the world, but he reckons it and the unity of the intellect as the two most pernicious errors.

²² "Philosophica scientia via est ad alias scientias; sed qui ibi vult stare cadit in tenebras." *De septem donis Spiritus Sancti* 4, 12, ed. Quaracchi V, 476.

²³ "Quod si verba philosophorum aliquando plus valent ad intelligentiam veritatis et confutationem errorum, non deviat a puritate aliquando in his studere, maxime cum multae sint quaestiones fidei quae sine his non possent terminari." *De tribus quaestionibus* 12, ed. Quaracchi VIII, 335.

²⁴ "Necesse est enim philosophantem in aliquem errorem labi, nisi adiuvetur per radium fidei." *Comm. in Sent.* 2, d. 18, art. 2, q. 1. See also *De septem donis Spiritus Sancti* 4, 12, as cited above, n. 22.

²⁵ "Et qui hoc confingit, aut tuetur, aut imitatur, sive secundum hoc incedit, errat gravissime." *De decem praeceptis* 2, 25, ed. Quaracchi V, 514. See also Hadrianus A. Križovljan, O.F.M.Cap., "Controversia Doctrinalis inter Magistros Franciscanos et Sigerum de Brabant," *Collectanea Franciscana* 27 (1957), 121-165, on pp. 127-34.

Although it seems that Bonaventure's return to Paris did not initiate the battle against the philosophers or against Thomas Aquinas, his sermons while he was there certainly did nothing to diminish the discord. After his departure, the philosophers continued to teach as before, and, as though there was not already enough to wrangle about, the old quarrel between the seculars and the Mendicants of the theological faculty broke out anew.

A little less than a year after Bonaventure's departure and about a year and a half after William of Baglione's questions uncompromisingly asserting that the non-eternity of the world could be proved by sure demonstrations, Thomas Aquinas was sent back to Paris by his Order, apparently because of the turmoil caused by some of the teachings of the arts faculty and the renewed hostilities between the seculars and Mendicants. Although Thomas's best known and most influential work immediately after his return was an assault on the doctrine of the unity of the intellect "against the Averroists," among the questions proposed to him at his Quodlibetal disputation on Easter of 1270 was one which seems intended to embarrass him, or at least to stir up discord, namely "Whether it can be demonstrated that the world is not eternal." The question is very brief, and the argument is restricted to a single point, which is derived from Maimonides, that whatever is dependent solely on the divine will cannot be demonstrated. Although this question does not involve anything Thomas had not already said in his previous treatments of the question, its sharp focus on a single point and its use of scriptural authority against those who claimed scriptural authority for their position are noteworthy.

The arguments *quod sic*, based essentially on the claim that the *computus* would not work if the world were eternal, are particularly inept, and Thomas takes full advantage of their weakness in his Response:

Those things which depend solely on the divine will cannot be proved demonstratively, because, as is said in 1 Corinthians 2:11: *Those things which are of God, no one but the Spirit of God knows.* But the creation of the world does not depend on any cause except the will of God alone. Therefore, those things which pertain to the beginning of the world cannot be demonstratively proved but are held on faith prophetically revealed through the Spirit, as the Apostle says just before the text cited above: *God has revealed to us through the Holy Spirit.* And one must utterly beware lest he presume to adduce through some demonstration those things which are of faith, for two reasons. First because he derogates from the excellence of faith, whose truth exceeds all human reason, according to Ecclesiasticus 3:25: *For many things are shown to you which are above the reason of men.* But those things which can be proved

demonstratively fall under human reason. Second, because, since many of these arguments are frivolous, they give an occasion for ridicule to the unbelievers, since they would think that we assent to articles of faith because of these arguments; and this is expressly apparent in the arguments given here, which are laughable and of no moment.²⁶

So Thomas was already becoming somewhat testy in his relations with his fellow regents in theology even before the condemnation of December 10 of that same year.

It would be a mistake, however, to treat this entire period as one of unrelenting hostility and vicious academic debate. There were conflicts enough. These have been much studied and commented on, and I shall attempt to do them justice. But we should also note that William of Baglione's successor, Walter of Brugge, did not, so far as is known, enter the fray or even discuss the question of the eternity of the world. And the next Franciscan master, Eustace of Arras, although he did indeed take up the topic, did so in a measured fashion and reverted to an earlier group of concerns, perhaps because he was disturbed by what had been taught on the subject by his *confrères* Alexander of Hales and more recently William of Baglione. Fr. Brady has done a great service in clarifying the biography of Eustace and in placing his regency at Paris in the academic years 1268-70.²⁷

As investigations of eternity became more sophisticated during the twelfth and thirteenth centuries, one of the most difficult problems, usually unnoticed by the thinkers involved, had to do with the durational relationships among the categories of eternity, *aevum*, and time, especially eternity and time. If eternity (God) is not involved in time, is simple

²⁶ "... ea quae simplici voluntati divinae subsunt, demonstrative probari non possunt; quia, ut dicitur 1 ad Corinth. 2, 11, *quae sunt Dei, nemo novit nisi spiritus Dei*. Creatio autem mundi non dependet ex alia causa nisi ex sola Dei voluntate; unde ea quae ad principium mundi pertinent, demonstrative probari non possunt, sed sola fide tenentur prophetice per Spiritum sanctum revelata, sicut Apostolus post praemissa verba subiungit: *Nobis autem revelavit Deus per Spiritum sanctum*. Est autem valde cavendum ne quis ad ea quae fidei sunt, aliquas demonstrationes adducere praesumat, propter duo. Primo quidem, quia in hoc derogat excellentiae fidei, cujus veritas omnem rationem humanam excedit, secundum illud Eccli. 5, 23: *Plurima super sensum hominis ostensa sunt tibi*; quae autem demonstrative probari possunt, rationi humanae subduntur. Secundo, quia cum plerumque tales rationes frivolae sint, dant occasionem irrisuonis infidelibus, dum putant quod propter rationes huiusmodi, his quae sunt fidei assentiamus; et hoc expresse apparet in rationibus hic inductis quae derisibiles sunt, et nullius momenti." Aquinas, *Quodlibet* 3, art. 31, ed. Parma IX, 507.

²⁷ Ignatius Brady, "Questions at Paris c. 1260-1270," V, *AFH* 62 (1969), 678-92, esp. p. 688.

and unchanging, how can it be related to the temporal, which is created, mobile, and ephemeral, and how can it be thought to exist *while* the temporal exists? Although Boethius' definition of the eternal as that which possesses its whole limitless life at once and to which there is no past or future but only an eternal present was quoted frequently in thirteenth-century questions on the eternity of the world, it seems seldom to have been made consistent with the other commonplaces of the *genre*, and in the thought of many men, as we have seen, it is difficult to see the difference between perpetual duration (i.e., endless though changeless extension in time) and the simple present of eternity. And it is especially difficult to see how the "now" of eternity is related to the "now" of time. Most thinkers seem to have considered it to be the unchanging persistence of a perfect state enduring through time. Indeed, this is one of the most difficult problems in the tradition of western thought on time, whose different parts had various origins and could not always be made mutually consistent.

It was specifically this problem to which Friar Eustace of Arras addressed himself in a series of seven disputed questions on eternity during his regency in the Parisian theological faculty some time between 1268 and 1270.²⁸ The problem had been treated before by William of Durham,²⁹ by an anonymous master of three questions *De eternitate*,³⁰ and much more extensively by Alexander of Hales,³¹ and it would be treated in exhaustive fashion again by Theodoric of Freiberg³² near the end of the thirteenth century, but none of these authors possessed the intellectual power of Eustace, whose questions stand as the most able medieval treatment of the subject of which I am aware.

Eustace's questions, taken as a whole, constitute a carefully constructed argument, whose principal aim is to show that the "nows" of eternity, evternity, and time are not the same. The first question establishes the fact that eternity necessarily exists. The second argues that it is completely the same as the divine essence, and that it is utterly simple and unlimited. In the third, Eustace investigates the relationship between the eternal and its measure. Since the measure must be of the same kind as the thing measured, therefore the eternal should have a measure which corresponds to it in its unique characteristics. It is, simply speaking, the

²⁸ Richard C. Dales and Omar Argerami, "Fratris Eustachii Atrebatensis *Quaestiones septem de aeternitate*," 1-3, *AHDLMA* 55 (1986), 111-137; questions 4-7, *Ibid.* 56 (1987), 59-102.

²⁹ See above, chapter 5, pp. 52-53.

³⁰ See above, chapter 5, p. 54.

³¹ See above, chapter 5, pp. 66-67.

³² See below, chapter 10, pp. 192-95.

first, containing and embracing all other things; it is completely actual, totally simple and perfect, and possessing every kind of interminability. Therefore its measure must be the same kind of thing, namely eternity. The fourth question shows that there can be only one such being. The most simple thing is what it has, and so eternity is completely the same as the eternal being, although differing by reason.

Now that he has established that there is only one eternal being and that its measure is unique, Eustace investigates in the fifth question the very difficult and apparently incompatible problem of how eternity can nevertheless be the measure of things other than the divine being. "Just as we see in causes that there is a certain cause which is first and universal, but others are particular causes and appropriate to diverse effects, ... and the first and universal cause influences the effects of the other causes, thus I say that measure may be understood in the same way."³³ Eternity excels all other causes and, because it lacks a beginning and end, "includes within itself all other measures and durations,"³⁴ although it is the proper measure only of the eternal. The sixth question proves a proposition which up to this point has been assumed, namely that eternity is completely simple. This is a crucial step in Eustace's argument because it corrects the vulgar notion of duration as unchanging persistence through time. If eternity has a before and after, it is composite. But it is simple, and so its duration does not involve before and after. The seventh question is the goal toward which the whole series has been progressing: whether the "nows" of eternity, eviternity, and time are the same or different. Its conclusion is that the three "nows" differ essentially.

The argument of the entire series of questions may be summarized as follows. Eternity exists *tota simul*, but it is also *immensa* or *infinita*, i.e., without limitation of any kind. Moreover, it is *simplicissima* and so is without distinction of before and after. Although we can make distinctions of reason concerning it, in fact it is what it has, for otherwise it would be composite.

To conceive of such a being strains the mind to the utmost. Although it lacks duration in the sense of the passage of time, still it excels and includes both the eviternal and the temporal. Eustace elucidates this in two ways. The first is by an analysis of measure, based on Aristotle's *Metaphysica* 10, 1 (1053a), and suggested, I believe, by Grosseteste's *De*

³³ "... sicut videmus in causis quod quedam est causa que est prima et universalis, alie autem sunt cause particulares et appropriate effectibus diversis, ... et causa prima et universalis habet influentiam super effectus aliarum causarum, sic dico quod duplex est mensura." *Ed. cit.*, p. 69.

³⁴ "... claudit in se omnes alias mensuras sive durationes." *Ed. cit.*, p. 69.

finitate motus et temporis. A measure must be the same sort of thing as the thing measured. Since eternity, eviterity, and time are different kinds of things, they must therefore have different measures. Still, there is a kind of relationship among them, since they "exist together." To solve this problem, Eustace makes a distinction between the proper measure of a thing (to which the above limitation applies) and a measure which is such through excelling and containing inferior measures. It is in the latter sense that the eternal can be considered the measure of the eviterity and temporal. The second is by an analogy with remote and proximate causality and with being "together in place" (*simul loco*), as discussed by Aristotle in *Physica* 5, 3 (226b). Since the "nows" of eternity, eviterity, and time constitute respectively the substance of each of these, it is clear that contradictions arise from assuming, as had Alexander of Hales, that all three share the same "now." Rather, the inferior two are excelled and contained by the "now" of eternity.

Eustace's solution is not entirely satisfactory. He has "solved" his problem only by making inexact analogies with causality and place, but he has done much to clarify a question which gave trouble to many. He avoided the emanationist implications of the Platonic Boethian account, which had seduced so many twelfth-century thinkers. He corrected the common mistake of considering that an eternal instant was the same sort of thing as a temporal instant, though stationary rather than "flowing." And he corrected the loose concept of duration and offered a solution to the question of how God exists "before" time and the world.

Eustace of Arras resigned his regency some time before March, 1270 in order to accompany Louis IX on crusade and was succeeded by master John Pecham,³⁵ who returned to the question of the eternity of the world in its more familiar form. He discussed it in two successive questions, the latter of which is built upon and presupposes the former, although it appears in one MS without its predecessor.³⁶

The first question is entitled *Utrum aliquid factum sit vel fieri potuit de nihilo ordinaliter*. It opens with a barrage of twenty-seven *quod non* arguments, including several from Aquinas, not only the *Sentences* commentary but also the *Summa theologiae*. Among them they include virtually every argument in behalf of an eternal creation which we have yet encountered; it seems that Pecham did not want to leave any bases uncovered. After this it is somewhat of a surprise to find only five *contra* arguments, one of which is taken from Avicenna and one from Aristotle; but the text is incomplete here, breaking off in mid-sentence, so there

³⁵ Ignatius Brady, "Questions at Paris c. 1260-1270," p. 688.

³⁶ That is, in MS Florence, Bibl. Laurenziana XVII sin. 8.

may originally have been more. In any case, Pecham does full justice to his side of the argument in his replies to the individual arguments after the Response.

The Response opens with an echo of Bonaventure's position (also Grosseteste's) that creation is an article of faith and will never be completely clear to any infidel, and it continues with a detailed refutation of arguments to the contrary, using, as had William of Baglione, the *De trinitate* of Richard of St. Victor. And he mentions at the end of his introductory arguments that Aristotle does not express any clear opinion on the first principle of things, although he says that there is no power except from God. This is followed by a polished essay treating the question of creation from nothing from the standpoints of the quantity of power of the producer, the manner of bringing things into being, and the perfection of the divine exemplar.

Among his replies to the individual arguments *quod non*, his thought shows definite advances over what we have previously encountered. He has apparently read and profited from the works of both Bonaventure and Eustace of Arras, and he finds himself in opposition to Grosseteste's claim, which had been accepted by earlier Franciscans, that the non-being of the world was in eternity. He treats the problem of how there could be a first instant of time in an original manner. "I concede," he says, "that the world began to be and did not exist before (*prius*). And I deny this: that its non-being was before its being, because this posits a measure according to before and after distinct from time. Whence it can be conceded that the world always existed,"³⁷ in the sense of Augustine and William of Conches, that is, that it is coterminous with the whole of time. He also holds that it is false that the non-being of the world was in the "now" of eternity, because there is no measure of pure non-being.

But the being of a creature is in time. If you still wish to say absolutely that its non-being was in the "now" of eternity, [the "now" of eternity] is not the same as the simplicity of an instant, because the simplicity of an instant exists in the simplicity of smallness and limitation, and therefore it cannot embrace several things.³⁸ But the simplicity of the "now" of eternity is not of

³⁷ "Concedo ergo quod mundus incepit et non fuit prius. Et nego istam: suum non-esse fuit prius quam suum esse, quia hoc ponit mensuram distinctam a tempore secundum prius et posterius. Unde concedi potest ista: mundus semper fuit." Pecham, *Utrum aliquid factum sit vel fieri potest de nihilo ordinaliter*, ed. Ignatius Brady, "John Pecham and the Background of Aquinas's *De aeternitate mundi*," p. 163.

³⁸ See Richard C. Dales, "Time and Eternity in the Thirteenth Century," *Journal of the History of Ideas* 49 (1988), 27-45, on pp. 37 and 45.

smallness, but of unmeasured multiplicity by which all things are embraced.³⁹

In a series of replies to arguments 7-13, he makes some very cogent observations on the confusion of divine eternity with endless temporal extension, a problem which had bedevilled those discussing eternity since the time of William of Durham, saying in his reply to the thirteenth that

however you understand the word "before" it is false that the non-being of the world was before the being of the world. But it is true that the being of the world was not "before," because, as we have mentioned above, by saying "the nonbeing of the world was before," [non-being] is coupled with a measure necessarily having before and after with respect to time, because every measure having before with respect to time has something posterior to itself, because this phrase expresses priority of extension.⁴⁰

And in his reply to the sixteenth argument, "that whatever is made was possible to be made," he uses Maimonides's distinction (without naming its source) between things done according to the way of nature and things done by supernatural power:

If it should be according to the way of nature, it is possible to be made according to the way of nature. But if it should be above the way of nature, it was possible for a supernatural power, that is, the power of the Creator, which is intrinsically always conjoined to act, but not extrinsically.⁴¹

This was essentially the position which Boethius of Dacia, within the next two years, would use to show that there was no conflict between the teaching of the philosophers and the Christian faith.

³⁹ "Esse autem creaturae est in tempore. Quod si adhuc velles omnino dicere quod necesse fuisset in nunc aeternitatis, non est idem simplicitati instantis, quia simplicitas instantis est simplicitatis paucitatis vel arctationis, et ideo plura complecti non potest. Simplicitas autem nunc aeternitatis non est paucitatis, sed multiplicitatis immensae, unde omnia tempora complectitur." *Ed. cit.*, pp. 163-64.

⁴⁰ "... quomodocumque dicatur 'prius,' ista est falsa: 'non prius fuit esse mundi,' quia, ut prius tactum est, dicendo 'prius fuit non-esse mundi' copulatur mensura habens prius et posterius respectu temporis ex necessario, quia omnis mensura habens prius respectu temporis aliquid habet se posterius, quia hic est sermo de prioritatem extensionis." *Ed. cit.*, p. 164.

⁴¹ "... si sit secundum cursum naturalem possibile est fieri secundum cursum naturalem; si vero sit supra cursum naturalem, possibile erat potentia supernaturali, potentia scilicet Creatoris, quae quantum ad intrinseca semper est actui coniuncta, quantum ad extrinseca minime." *Ed. cit.*, p. 164.

The second question is not whether the world is eternal but, as would become more common from now on, whether the world was able to be created from eternity, and it assumes the preceding question as answered. The sources for the *quod sic* arguments, numbering thirty-one in all, are again the traditional ones, including the garbled version of Ps.-Dionysius *De divinis nominibus* 4, 16, Augustine, Boethius, Gennadius of Marseilles *De ecclesiasticis dogmatibus*, and among which is a version of the "two means" argument in the same form as it is found in the *Summa de bono* of Philip the Chancellor and in the anonymous author of the commentary on the *Sentences* contained in Todi, Biblioteca comunale MS 121, folio 131ra, perhaps John of La Rochelle. As he had in the preceding question, Pecham uses letters of the alphabet to stand for instants or for units of time. By far the most interesting of these is one which we have found foreshadowed in the works of earlier authors. It is listed among the *contra* arguments and so may not be Pecham's, but that of the *respondens*. But this is a reworked and polished question, considerably removed from the original rough form of an actual disputation; and the argument in question is so complex that it is difficult to imagine its being given orally on the spur of the moment by a disputant. It goes as follows:

Likewise, if the world has endured for an infinite time, it will similarly endure [in the future]. Therefore, let us take the instant at noon today, and let it be A, and let the whole past time be called A-past and all the future time A-future. Similarly, let us take the instant at noon tomorrow, which shall be B, and let the whole past be called B-past and the whole future B-future. Having posited this, let us suppose that of two equals, whatever is greater than one is also greater than the other, and by so much as one is greater, the other is also. Also, let us suppose that whichever contains the other with something more besides is greater than it and is a whole with respect to it. Likewise, [let us suppose] that two infinities proceeding from the same indivisible [point] are equal. From this, let it be that A-past and A-future are equal, since it is supposed *per impossibile* that one neither exceeds the other nor is exceeded by it. Similarly, B-past and B-future are equal. But B-past is greater than A-past and is a whole with respect to it. Therefore it is greater than A-future. But B-past and B-future are equal. Therefore B-future is greater than A-future. But A-future is a whole with respect to B-future. Therefore the part is greater

than the whole, on the supposition that time shall have existed without a beginning.⁴²

One should particularly note the definition of "whole" used in this argument. John E. Murdoch, writing in *The Cambridge History of Later Medieval Philosophy*, p. 571, attributed this definition to Henry of Harclay, but it is clearly much older, whether it is Pecham's or that of some anonymous disputant. This argument seems to me much stronger than the one which follows, namely that infinite souls cannot exist simultaneously. Pecham replies to the latter argument by saying that

perhaps one who wishes to maintain the contrary will not hold that an actual infinity is absurd; *sed contra*: for the infinite to exist in act is contrary to all philosophy. Another heretic teaches otherwise that souls perish with the body, which is contrary to all the noble philosophers; or he will say that there is one soul for all bodies, which is contrary to the most correct philosophy, which says that there is a proper form for proper matter and there is one mover of one mobile; or he will say that souls return successively into different bodies, and this is disproved by the Philosopher and reputed among the Pythagorean fables.⁴³

Pecham's argument is indebted to Bonaventure and Grosseteste, coupled somewhat improbably with Aristotle.

⁴² "Item, si mundus duraverit per tempus infinitum et durabit similiter, accipiatur ergo instans mediae diei, quod sit A; dicaturque totum tempus praeteritum A-praeteritum, et omne tempus futurum A-futurum. Similiter sumatur aliud instans mediae diei, quod sit B; dicaturque totum tempus praeteritum B-praeteritum, et totum futurum B-futurum. Item hiis positis supponatur quod duorum aequalium quidquid est maius uno et reliquo, et quocumque unum est maius, et reliquum. Item supponatur quod quidquid sustinet alterum cum alio superaddito sit maius ipso vel totum ad ipsum. Item, quod duo infinita ab eodem indivisibili procedentia sint aequalia. Ex hoc sic: A-praeteritum et A-futurum sunt aequalia, cum unum per impossibile alteri suppositum nec excedat nec excedatur ab eo. Similiter B-praeteritum et B-futurum sunt aequalia. Sed B-praeteritum est maius quam A-praeteritum, et totum ad ipsum. Ergo est maius quam A-futurum. Sed B-praeteritum et B-futurum sunt aequalia. Ergo B-futurum est maius quam A-futurum; sed A-futurum est totum ad B-futurum. Ergo pars est maior suo toto, posito quod tempus fuerit sine initio." Pecham, *Utrum mundus potuit fieri ab aeterno*, ed. cit., p. 171.

⁴³ "Forte hoc non habebit pro inconvenienti qui volet contrarium sustinere. Sed contra: Infinita esse actu est omni philosophiae contrarium. -- Aliter docet alius haereticus animas interire cum corpore, quod est contra omnes nobiles philosophos; vel dicit omnium hominum esse animam unam, quod est contra rectissimam philosophiam, quae formam propriam dicit esse propriae materiae et unum esse motorem unius mobilis; vel dicit quod animae successive revolvuntur in corpora diversa, et hoc est a Philosopho improbatum et inter pythagoricas fabulas reputatum." Ed. cit., pp. 171-72.

The argument, which was also used by the anonymous English Franciscan and Thomas of York, that all past time was future, and therefore time had a beginning of its duration, is repeated by Pecham, and the argument given by Aquinas, *Summa theologiae* 1, 46, 2, that there could be an infinite number of fathers generating sons, since the father is a cause of the son only *per accidens*, is refuted by an appeal to the authority of Aristotle's *Metaphysica*.

Pecham's Response, which owes much to Bonaventure's *Commentary on the Sentences*, states the moderate position on the relation of faith to reason as clearly and succinctly as any author I have encountered. "The creation of the world *ex tempore*," he says,

although it is an article of faith, nevertheless, so it seems, can be investigated by reason. Nor does this prejudice faith, since one does not assent to faith because of reason but attains the knowledge of it as a reward of faith. Therefore, all those who have spoken of creation without faith have gone astray either by default by not attributing it to God or by excess by attributing it to something other than God. Therefore, the manner in which the world was created in time and not from eternity is clear if we consider first its true posterity of coming into being, second its participation in being, third the manner of its origin, fourth the measure of its production, and fifth the whole course of time.⁴⁴

He then presents arguments under each of these five heads, citing Augustine especially, but also Damascenus, Anselm, and Hugh of St. Victor. The positions are all familiar, but Pecham attempts to clarify the assertion that if the world were of infinite duration, it would be equal in duration to God. Much of this is also found in William of Baglione, but Pecham uses the distinction of intensive and extensive to maintain the difference between simple and complex (i.e., temporal) duration. If the world were eternal, this would be

either because its duration extensively is as great as God's duration intensively, or because the mutability of time is the same length as

⁴⁴ "Creatio mundi ex tempore quamvis sit articulus fidei, tamen ratione, ut videtur, potest investigari. Nec hoc est in praeiudicium fidei, dum non propter rationem fidei assentitur, sed merito fidei ad eius intelligentiam pervenitur. Unde qui sine fide de creatione locuti sunt, omnes erraverunt vel diminute, non eam attribuendo Deo, vel superflue, attribuendo eam alii a Deo.

Mundum igitur fuisse ex tempore et non ab aeterno creatum patet considerando primo in ipso veram praeteritionem fieri, secundo participationem essendi; tertio modum suae originis; quarto mensuram suae productionis; quinto totum decursum temporis." *Ed. cit.*, p. 173.

the simplicity of eternity. This is impossible, just as it is to find the world as great with respect to a quantity of mass as God is with respect to a quantity of power. ... Or, if you say that the case is not similar to nonbeing, because to posit an infinite magnitude is to posit an actual infinity, but to posit infinite time is not to posit anything infinite in act because the parts of time are not simultaneous; *contra*: time is a being of some sort. Therefore, time would be an infinite thing or an infinite essence of created duration equalling the eternity of God, although not in simplicity, nevertheless in the infinity of duration in the past.⁴⁵

The same conclusion had been reached by Odo Rigaldus and William of Baglione, but without the intricate argument. Pecham's acute perception in the preceding question that the non-being of the world has no measure and that the measures of eternity and time are incomparable should have enabled him to avoid the untenable (and un-Augustinian) position that the world's infinite temporal duration would make it equal to God in this respect, but he has instead tried to maintain the traditional view, first by introducing the distinction between intensive and extensive duration and then by ignoring it. It is no wonder that Aquinas wrote his *De aeternitate mundi* in some exasperation.

The other position held by the conservatives, that being created from nothing necessarily means being after not having been, is also adopted by Pecham, but it plays a subordinate role in his question and is supported only by the argument, derived from John Damascene, that "just as turning into non-being (*versio in non-esse*) cannot stand with [created] infinity in the future, so eduction from non-being cannot stand with infinity in the past."⁴⁶

He sums up his Response saying that

the world was in no way capable of eternal or endless duration. Those who claim that the world is coeternal with God are moved to this position from a false foundation: either because they think that without the world God was idle; or because they imagine that

⁴⁵ "... tantum est suum esse vel tam diuturnum extensive sicut esse divinum intensive, et tam longa volubilitas temporis quanta simplicitas aeternitatis; quod est impossibile, sicut invenire mundum tantum quantitate molis sicut Deus est quantitate virtutis. ... Quod si dicas non esse simile, quia ponere magnitudinem infinitam est ponere infinitum actu; ponere autem tempus infinitum non est ponere aliquid actu infinitum, quia partes temporis non sunt simul; contra: tempus est aliquod ens; ergo tempus infinitum, ens vel essentia creatae durationis aequans aeternitatem Dei; et si non in simplicitate, tamen in durationis immensitate a parte ante." *Ed. cit.*, p. 174.

⁴⁶ "... sicut versio in non-esse non potest stare cum infinitate a parte post, ita nec eductio de non-esse cum infinitate a parte ante." *Ed. cit.*, p. 175.

a space of time preceded the world; or because they do not believe that God makes anything new because this would entail an affection of his will and consequently a change in him.⁴⁷

All three of these reasons are derived from the works of Augustine.

In his reply to the first argument *quod sic*, based on ps.-Dionysius *De divinis nominibus* 4, 16, that good is self-diffusive, he gives as full statement of the conservative position as I have found anywhere:

The diffusion of good and light is twofold, one intensive through eternal emanations, one extensive for the production of temporal things. The intensive is necessarily eternal because of the uniformity and completely perfect actuality of the divine nature. But the second, which is of temporal things and time, is necessarily according to that which is suitable to a creature. Whence, just as the universe is finite and not capable of being infinite in magnitude, thus time was not capable of actual infinity in either direction; and therefore, since it is a part of the universe, it is set off by limit and measure. Otherwise, a finite thing would be capable of an infinite mode of existence, as has been said. And that which Augustine says, that only the goodness of God was the cause of things [cf. Augustine, *Contra adversarium legis et prophetarum* 1, 7], I say that it is true, but it is not the cause of defects, such as newness and veritability and smallness, which pertain to a creature insofar as it is from nothing: newness, because it was made by another; veritability, because it was made from nothing; smallness, because it was made by way of participation.⁴⁸

⁴⁷ "... mundus nullo modo capax fuit aeternae vel interminabilis durationis. Qui autem posuerunt mundum Deo coaeternum ex falso fundamento ad hoc moti sunt: vel quia sine mundo Deum credebant esse otiosum; vel quia imaginati sunt temporis spatium praecessisse mundum; vel quia non credebant Deum aliquid facere novum nisi voluntate affectum et per consequens mutatum." *Ed. cit.*, p. 176.

⁴⁸ "... duplex est diffusio illius boni vel lucis: quaedam est diffusio boni interior per aeternas emanationes, quaedam exterior per rerum temporalium productionem. Interior de necessitate est aeterna propter uniformitatem et perfectissimam actualitatem divinae naturae. Secunda autem, quae est temporalium et temporalis, de necessitate est secundum quod congruit creaturae. Unde sicut universum est finitum nec capax infinitatis in magnitudine, ita nec tempus capax erat infinitatis actualis ex aliqua parte, et ideo ipsum, cum sit pars universi, certo termino et mensura est perventum. Aliter finitum esset susceptivum modi infiniti, ut dictum est. Et quod dicit Augustinus quod sola bonitas Dei fuit causa istorum, dico quod verum est, sed non causa defectuum, sicut novitas et veritabilitas et parvitas quae sequuntur creaturam in quantum ex nihilo. Novitas, quia ab alio facta est; veritabilitas, quia ex nihilo facta est; parvitas, quia participative facta est." *Ed. cit.*, p. 176.

Pecham does not assert in this question that the non-eternity of the world is strictly demonstrable -- only that it is true and a Christian who believes can understand, with the help of reason, why it is true. The thinkers we have encountered thus far who have held explicitly that the non-eternity of the world is strictly demonstrable are William of Baglione, the anonymous Franciscan of Vat. Ottobon. 185, Gilbert of Tournai, and the anonymous follower of Bonaventure edited by Baldner. They are the forerunners of the extreme conservatives, and this position would continue to be maintained through the end of the medieval period (and indeed there are still today some who maintain it). But it is important to point out that neither Bonaventure nor Pecham held this view.

Compared to William of Baglione, Pecham seems quite moderate and is in fact much closer to the position of Bonaventure. He maintains the traditional positions that being made from nothing means being created in time, and that infinite past duration would make the world equal to God in duration, thus indicating that despite some penetrating remarks on the subject in his first question, he had not after all managed to free himself from confusing eternity and infinite temporal extension. Many of his arguments seem to be replies to what Aquinas had said in either his *Sentences* commentary of *Summa theologiae*, although there is no attempt at a point by point refutation. And these questions are totally lacking in any reference to the contemporary Parisian philosophical movement. Yet shortly after they were debated, bishop Tempier condemned a list of thirteen propositions,⁴⁹ for the most part those maintained by the philosophers, and including the eternity of the world.

⁴⁹ That is, on December 10, 1270. *Chartularium Universitatis Parisiensis* #432, 1, 486-87.

CHAPTER EIGHT

THE CONDEMNATION OF 1270 AND ITS AFTERMATH

On December 10, 1270, bishop Tempier condemned a series of thirteen propositions, including the eternity of the world and that there was no first man, and forbade any master to maintain them. As would become clear by 1272, the arts faculty itself was divided on the issue, and on April 1, 1272, following the election of a new rector, a majority of that faculty forbade its members to dispute a number of topics, which were reserved to theology, or in matters common to the two faculties to determine in a way inconsistent with theology.¹ Whatever the theoretical legal basis if the bishop's condemnation may have been, it seems to have been universally ignored. Between these two years, four major works on the eternity of the world were written, two by artists, Siger of Brabant and Boethius of Dacia, and two by theologians, one by the Franciscan William of Falegar and one by the Dominican Thomas Aquinas. The exact dating and sequence of the above-mentioned treatises cannot be established, but they have been placed with confidence between 1270 and 1272.

At some time during 1271 or 1272, William of Falegar, a Franciscan and student of John Pecham, disputed the question *Utrum deus potuerit producere aliquid sibi coeternum, differens ab eo essentialiter*,² that is, anything other than the divine persons. It is representative of the moderate position of Bonaventure and Pecham, although it is inferior in quality to the works of both of these masters. This question is remarkable for its moderate and conciliatory tone and for the way it sums up much of the preceding thought on the question and sets the stage for the subsequent works of Matthew of Aquasparta and Henry of Ghent.

In describing the state of the question, William goes out of his way to avoid personal controversy. Some people, he says, assert that the world is eternal and not made by God; others hold that it is eternal but made. Both of these are erroneous and contrary to faith, but the first is worse than the second. Then he goes on to state a third opinion -- that the

¹ *Chartularium Universitatis Parisiensis* #441, I, 499.

² Edited by A. J. Gondras, "Guillaume de Falegar. Oeuvres inédites," *AHDLMA* 47 (1972), 185-288, on pp. 211-16.

world was in fact created with time, but it, or some creature, could have been produced from eternity. "I do not believe this to be the position of Augustine or of the other saints," he says, "nor even of that doctor to whom it is imputed, nor do I believe that it is true."³ The doctor to whom it is imputed seems certainly to have been Aquinas. On the basis of Aquinas's works prior to his *De aeternitate mundi*, one could reasonably doubt that the opinion just stated was his.⁴ But after the appearance of *De aeternitate mundi* there could have been no doubt, and so we may assume that this question was disputed shortly before *De aeternitate mundi*. It is refreshing to see William refrain from imputing the most extreme interpretation to Aquinas's writings and in effect inviting him to clarify his position in the direction of Bonaventure's doctrine.

The form of William's Response is similar to that of Pecham's. He first states eight principles, which will form the basis of his determination:

1. Divine production is twofold, intensive (i.e., the divine persons) and extensive (i.e., everything else).

2. Intensive production cannot be in time, but extensive production can be, since it posits no change or innovation in God, but only in the produced thing, "although this is very difficult to understand.

3. Eternity in God is nothing other than his own utterly simple essence; in no other thing is its duration identical with its existence.

4. Only in divine eternity is there pure simplicity; in the duration of everything else there is composition and succession.

5. All things which are other than God depend totally on him, so that, if he should cease to conserve what he has created, the world would instantly cease to exist.

6. God's power is never increased, diminished, or changed.

7. We do not understand by "a thing's being created from eternity" that it is measured by eternity, which is God, but that a thing thus produced from eternity would not have a beginning of duration, but always was.

8. In no respect can a creature be equated to the creator, since whatever is in the creator will be infinite in its most true actuality; but no creature can have anything infinite in act, either essentially or accidentally.

On the basis of these principles, he states his position:

³ "Hanc non credo esse positionem Augustini nec aliorum Sanctorum nec etiam illius Doctoris, cui imponitur, nec credo esse veram." *Ed. cit.*, p. 212.

⁴ See John F. Wippel, "Did Thomas Aquinas Defend the Possibility of an Eternally Created World?"

I believe that nothing other than God is able to exist from eternity, and nothing differing from him essentially can be produced coeternal with him; not because of any impotence of God, but because no creature is capable of coeternity. Nor does it seem to me that this is unintelligible, if it be investigated carefully, nor does it derogate from divine power in any way.⁵

He first establishes his views on the basis of authority (Augustine, Damascenus, Hugh and Richard of St. Victor, and Anselm), and then by reason. He offers four arguments.

The first of these, "from the perfection of divine power," gets at a point which will be developed at length by Henry of Ghent: The production of the divine persons is the production of equals and is necessary. But the production of things which differ from God essentially is the result of his free will, and they can be produced or not be produced. But if they were *ab aeterno*, God would never have been able not to produce them. "And therefore by the very fact that you posit a thing differing from God essentially to be produced from eternity, you necessarily posit that it could not be in his power to produce or not produce, which is really to derogate from his power, although superficially you might seem to magnify God's power."⁶

The second argument, "from the highest nobility of eternity," holds that true eternity, which consists of lacking a beginning and end and all mutability, cannot be communicated to any creature. The highest of these three criteria is "lacking a beginning," which is the incommunicable property of God alone, although the other two, lacking an end and a certain immutability, can be communicated in some way.

The third, "from the natural mutability of all things differing essentially from God," asserts the traditional view that being made from nothing necessarily implies a temporal beginning.

Therefore, since every creature is mutable because it is made from nothing and it is impossible that it should not be mutable (although some things by divine power are not changed in act), it is

⁵ "... credo nihil aliud a Deo potuisse esse ab aeterno nec aliquid ab eo essentialiter differens potuisse produci sibi coaeternum, non propter aliquam Dei impotentiam, sed quia nulla creatura coaeternitatis est capabilis, nec videtur mihi hoc esse intelligibile, si diligenter pertractetur, nec in aliquo divinae potentiae derogare." *Ed. cit.*, p. 213.

⁶ "... et ideo eo ipso, quo ponis a materia rem ab eo diversam posse produci ab aeterno, ponis necessario quod possit non esse in sua potestate ad producendum et ad non producendum, quod est suae potentiae realiter derogare, licet superficialiter videaris Dei potentiam magnificare." *Ed. cit.*, p. 214.

not possible but that every creature was once not nothing. But if it had been able to exist from eternity, it would never have been nothing.⁷

The fourth is a restatement of Bonaventure's infinity arguments, but with the difference that it distinguishes between uncreated and created infinity. God is infinite in act because he is totally perfect and totally simple, and therefore his infinity is not repugnant to perfection and order. But since a creature is not able to possess sheer simplicity, its actual infinity would lead to confusion and disorder. "And therefore to posit some thing produced by God and different from him essentially could be produced coeternal with him is truly impossible, just as that an infinite succession has existed and we have arrived at the present."⁸

Unfortunately, William's powers of persuasion did not equal his gracious disposition, and Aquinas's clarification, when it came, was not in the direction of Bonaventure's doctrine.

Ever since his student days, when he composed his commentary on the *Sentences*, Thomas had been concerned about the topic of the eternity of the world, and he had consistently maintained that the question could not be demonstrated and that the temporal creation had to be accepted on faith. While he was in Italy, shortly before returning to Paris, he composed his commentary on the *Physica* and, apparently as a result of this,⁹ took a more definite stand on the actual possibility of an eternal world.

Thomas's treatise on the eternity of the world has often been interpreted as an attack on one particular master, usually considered to have been Bonaventure, but identified with John Pecham by Fr. Brady.¹⁰ Fr. Weisheipl has called Brady's identification into question, and I concur with his conclusion that there was no single opponent whom Thomas had in mind. One may assume that he felt himself to be under attack, and he surely felt a certain contempt for the inept philosophizing of his predecessors and contemporaries, not all his enemies. His treatise seems to be an attempt to settle the matter once and for all by investigating thoroughly each point of the discussion. He eschewed the common form

⁷ "Cum igitur omnis creatura sit mutabilis eo, quod de nihilo facta, et impossibile sit non esse mutabilem, licet actu aliqua non mutantur per divinam potentiam, non est possibile quin omnis creatura aliquando non fuerit nihil." *Ed. cit.*, p. 215.

⁸ "Et ideo ponere aliquam rem a Deo productam et ab eo diversam essentialiter posse produci sibi coaeternam vere est impossibile, sicut infinitas successiones fuisse et usque ad nunc pervenisse." *Ed. cit.*, p. 216.

⁹ See James A. Weisheipl, "The Date and Context of Aquinas' *De aeternitate mundi*," pp. 267-71.

¹⁰ Ignatius Brady, "John Pecham and the Background of Aquinas's *De aeternitate mundi*," p. 154.

of the stylized *quaestio* for this work, in order, I think, to keep the structure of the argument in sharp focus. His personal annoyance at the opacity of his adversaries is evident, and he even permits himself the luxury of a rare personal insult.

Unlike his treatise on the unity of the intellect, this one is a theological work,¹¹ designed to settle the matter theologically, and it contains no references to the artists. Although this opusculum has been admirably summarized several times¹² and translated into English at least once,¹³ it is necessary here to consider it in detail.

The treatise is directed at the two points which I have previously labelled equivocations, which had been an integral part of discussions of the eternity of the world since the time of William of Durham, namely the confusion of "from nothing" with "after nothing" and the use of eternal to mean endless temporal extension as well as "absolutely simple, atemporal, and *totum simul*," without clearly specifying which meaning was being considered.

Thomas begins by delineating the areas of agreement and disagreement among Christians on the question, and then quickly gets to the point, saying that even assuming that the world has a beginning of its duration, there remains a question as to whether it could have always existed. If this is understood as meaning that something besides God could have always existed, he says, as if to say there is another eternal being besides him, not made by him, this view is abominable not only in faith but also among the philosophers. But if it is understood as meaning that something has always existed and was nevertheless caused by God according to everything which is in it, it must be seen whether this is so.

If such a thing is impossible, this will be either because God could not make something which always was, or because such a thing would be unable to be made, even if God could do it. Everyone agrees that God could make such a thing because of his infinite power. So it remains to be seen whether it is possible for such a thing to be made. If it cannot, this is either because of the lack of a passive potency, or because it is contrary to reason. But a passive potency could not have preceded the creation of the world, because then a passive potency would always have existed, which is heretical. This leaves the question of whether God can do something which is contrary to reason; and although some men have said so, Thomas thinks they are wrong, but they are not heretical.

¹¹ This has been pointed out by Weisheipl, *art. cit.*, p. 243.

¹² See especially Weisheipl, *art. cit.* pp. 253-57; Wippel *art. cit.*, pp. 30-35; and Brady, *art. cit.*, pp. 143-46.

¹³ In *St. Thomas, Siger of Brabant, St. Bonaventure On the Eternity of the World (De Aeternitate Mundi)* (Milwaukee, Wisc., 1964), pp. 19-25.

Therefore, the whole question consists of this: whether to be created by God according to one's whole substance, and not to have a beginning of duration, are mutually inconsistent or not. That they are not is shown thus: If they were inconsistent, they would be so for one or both of the following reasons: either because it is necessary that an agent cause be preceded by duration, or because its non-being must precede its being by duration -- it is on account of this that it is said that a thing created by God is made from nothing.¹⁴

First he argues that it is not necessary that the agent cause, i.e., God, should precede the things he causes by duration, if he should so wish, because no cause which produces its effects instantaneously precedes its effect by duration. God produces his effect not by motion but instantaneously, and therefore he need not precede it by duration, as we see in illumination and things of this sort. In such action, the end is simultaneous with the beginning, as in all indivisibles. Therefore it is not logically inconsistent to posit that a cause which produces its effect instantaneously does not precede the things it causes by duration, although it is inconsistent in things made through motion.

And because men are accustomed to consider makings of this kind which are through motion, therefore they do not easily grasp that an agent cause need not precede its effect by duration. And thence it is that, inexperienced in many things and informed about only a few, they facily make pronouncements.¹⁵

Nor is it necessary that a will should precede its effect by duration, nor the agent through will, unless because it acts from deliberation, which we posit not to be present in God.

He then gives three more arguments for the same thing, all three of which are against arguments we have encountered in the works of other

¹⁴ "In hoc ergo tota consistit quaestio, utrum esse creatum a Deo secundum totam substantiam. et non habere durationis principium, repugnet ad invicem, vel non. Quod autem non repugnet, sic ostenditur. Si enim repugnant, hoc non est nisi propter alterum duorum, vel propter utrumque: aut quia oportet ut causa agens praecedat duratione; aut quia oportet quod non esse praecedat esse duratione, propter hoc dicitur creatum a Deo ex nihilo fieri." Ed. Parma, p. 318b.

¹⁵ "Et quia homines consueti sunt considerare huiusmodi factiones quae sunt per motum; ideo non facile capiunt quod causa agens duratione effectum suum non praecedat. Et inde est quod multorum inexperti ad pauca respicientes enuntiant facile." *Ed. cit.*, p. 319a.

masters. The first is that "a cause producing the whole substance of a thing is no less able to produce the whole substance than a cause producing a form is able to produce a form; indeed it is more able, because it does not produce by educing from the potency of matter."¹⁶ We have an example of the latter in the sun's light. "Therefore, much more strongly, God, who produces the whole substance of a thing, can bring it about that his effect exists whenever he himself is."¹⁷ This, of course, was counter to one of the oldest and most frequently used arguments in the tradition. Second is the claim that the only reason the effect of an instantaneously existing cause could not exist coevally with that cause would be that something were lacking in the cause. But God is never lacking in anything. Therefore it is not necessary that he precede his effect by duration. The third shows that although God's will, acting freely, need not always have produced the same effect, still "he can see to it that what he causes should never be non-existent."¹⁸ And Thomas concludes concerning this first problem that "it is clear that it is not repugnant to the understanding that an agent cause is said not to precede its effect by duration, because in those things which are repugnant to the understanding, God cannot bring it about that they might be."¹⁹

He then turns to the heart of the opposition's argument, the other of the two major equivocations which infected the thought of so many of the writers we have investigated, namely "whether it is repugnant to the understanding that something made did not ever not exist, because it would be necessary for its non-being to precede its being by duration, for the reason that it is said to be made from nothing."²⁰ He begins by citing Anselm, *Monologion* 8 to the effect that "because, aside from the highest essence, all things which are from the same thing were made from nothing, i.e., not from something, nothing illogical follows."²¹ Then he develops his own argument:

¹⁶ "Causa producens totam rei substantiam, non minus potest in producendo totam substantiam, quam causa producens formam in productione formae; immo multo magis: quia non producit educendo de potentia materiae." *Ed. cit.*, p. 319a.

¹⁷ "Ergo multo fortius Deus, qui producit totam rei substantiam, potest facere ut causatum suum sit quandocumque ipse est." *Ed. cit.*, p. 319a.

¹⁸ "...potest facere ut causatum ab eo nunquam non sit." *Ed. cit.*, p. 319a.

¹⁹ "Et ita patet quod non repugnat intellectui, quod dicitur causa agens non praecedere effectum suum duratione, quia in illis quae repugnant intellectui, Deus non potest facere ut illud sit." *Ed. cit.*, p. 319a.

²⁰ "...an repugnet intellectui aliquid factum nunquam non fuisse propter hoc quod necessarium sit non esse ejus esse duratione praecedere, propter hoc quod dicitur ex nihilo factum esse." *Ed. cit.*, p. 319a.

²¹ "...quia, praeter summam essentiam cuncta quae sunt ab eodem, ex nihilo facta sunt, idest non ex aliquo: nihil inconueniens sequetur." *Ed. cit.*, p. 319b.

Furthermore, let it be supposed that the order *ad nihil* contained in the proposition remains affirmed in this sense: a creature was made from nothing, i.e., it was made after nothing, this word "after" designates an order absolutely. But order is multiplex, namely of duration or of nature. Therefore, if the proper and particular does not follow from the common and universal, it will be necessary that because a creature is said to be after nothing, that "nothing" was prior in duration and afterwards it became something. But it is sufficient if nothing is prior to being with respect to nature. For that which is in each and every thing naturally from itself is prior to what it has only from something else. Left to itself, considered in itself, it is nothing. Whence "nothing" was in it naturally before being. Nor is it necessary that for this reason nothing and being exist simultaneously, because nothing did not precede being by duration. For it is not posited that if a creature always was, it would be nothing in some part of time. But it is posited that its nature is such that it would be nothing if left to itself; as if we should say that the air was always illuminated by the sun, we should have to say that the air was made light by the sun. And because everything which is made is made from an incontinent, i.e., from that which does not happen to be simultaneously with that which is said to be made, we must say that it was made light from non-light, or dark; not in such a manner that it ever was non-light or dark, but because if it were left to itself it would be so. And this is more expressly evident in the stars and orbs which are always illuminated by the sun. Thus therefore it is clear that in this statement -- for something to be made by God and never to have not existed -- is not something unintelligible.²²

²² "Praeterea, supponatur quod ordo ad nihil in propositione importatus remaneat affirmatus, ut sit sensus, creatura facta est ex nihilo, idest facta est post nihil: haec dictio 'post' ordinem importat absolute. Sed ordo multiplex est: scilicet durationis et naturae. Si igitur ex communi et universali non sequitur proprium et particulare, non erit necessarium ut propter hoc quod creaturam esse post nihil dicitur, prius duratione fuerit nihil, et postea fuerit aliquid: sed sufficit, si prius natura sit nihil quam ens; prius enim inest unicuique naturaliter quod convenit sibi in se, quam quod solum ex alio habet. Esse autem non habet creatura nisi ab alio; sibi autem relicta in se considerata nihil est: unde prius naturaliter inest sibi nihil quam esse. Nec oportet quod propter hoc sit simul nihil et ens, quia duratione non praecessit: non enim ponitur, si creatura semper fuit, ut in aliquo tempore nihil sit: sed ponitur quod natura ejus est talis quod esset nihil, si sibi relinqueretur; ut si dicamus aerem semper fuisse illuminatum a sole, oportebit dicere, quod aer est factus lucidus a sole. Et quia omne quod fit, ex incontinenti fit, idest ex eo quod non contingit simul esse cum eo quod dicitur fieri; oportebit dicere quod sit factus lucidus ex non lucido, vel tenebroso; non ita quod nunquam fuerit non lucidus vel tenebrosus, sed quia esset talis, si sibi relinqueretur. Et hoc expressius

He seems to owe the heart of this argument to Pecham, except that he carries Pecham's insight to its logical conclusion.

Apparently exasperated by his opponents' misunderstanding and misuse of Augustine, Thomas turns to an analysis of Augustine's words in *De civitate Dei*:

For if it were [unintelligible], it is amazing that Augustine did not see it, because this was a very effective way to disprove the eternity of the world; since nevertheless he himself with many arguments impugned the eternity of the world in 11 and 12 of *De civitate Dei*. But he completely passed over this one. On the contrary, he seems to suggest that it is not unintelligible. Whence he says, *De civitate Dei* 10, 31, speaking about the Platonists: "They found a way of taking care of this by making clear that it was not a beginning of time but a principle of subordination. They explain that if from eternity a foot had always been placed in the dust, there would always be a footprint underneath, and no one would doubt that the footprint came from someone stepping there; and yet the foot would not be prior to the footprint, although the print was made by the foot. In like manner, they continue, the world and the gods created in it have always existed, because their maker has always existed, and nevertheless they were made." He does not ever say that this cannot be understood, but he proceeds against them in another way. Likewise, he says in 11, 4: "Those who confess that the world was made by God and nevertheless do not claim that it had a beginning of time but a principle of its creation, so that in a certain scarcely intelligible was it was always made, are saying something [intelligible], and so they seem to themselves to be defending God by a bold piece of luck." The reason that it is scarcely intelligible is touched on in the first argument. It is also amazing how the noblest of the philosophers did not see this unintelligibility. For Augustine says in this same book, chapter 5, speaking against those he had mentioned in the preceding quotation: "Our present discussion is with those who are in accord with us that God is immortal and the creator of all natures except his own"; and about the philosophers he adds later on: "They surpass all the philosophers in prestige and authority" (11, 5). And this is also clear to those who diligently consider the words of those who posit that the world has always existed; because they nevertheless

patet in stellis et orbibus qui semper illuminantur a sole. Sic ergo patet quod in hoc quod dicitur, aliquid factum esse a Deo et nunquam non fuisse, non est intellectus aliqua repugnantia." *Ed. cit.*, p. 319b.

posit that it was made by God, sensing nothing in this to be unintelligible to the understanding.²³

And he concludes this section with a sarcastic allusion to Job 12:2: "Therefore, those who perceive it so subtly are only men, and with them wisdom begins."²⁴

This is followed by a consideration of statements by John Damascene and Hugh of St. Victor, which seem to say that nothing can be coeternal with God. Thomas calls attention to the equivocal use of "eternal" and points out that they were using the word in Boethius's sense. And, showing a truer Augustinianism than the alleged Augustinians, he shows how Augustine's words must be understood:

Thus it is clear that the objection certain people raise does not follow, i.e., that the creature would be equal to God in duration. Rather we should say that there can be nothing coeternal with God, because there can be nothing immutable except God alone. This is clear from what Augustine says in *De civitate Dei* 12, 15: "Since the passing of time implies change, it cannot be coeternal with changeless eternity. Therefore, although the immortality of the angels does not run through time, not being past as if it were

²³ "Si enim esset aliqua repugnantia, mirum est quomodo Augustinus eam non vidit: quia haec efficacissima via esset ad improbandum aeternitatem mundi, cum tamen ipse multis rationibus impugnet aeternitatem mundi in 11 et 12 *De civitate Dei*. Hanc autem unde omnino praetermittit? Quinimmo innuere videtur quod non sit ibi repugnantia intellectuum: unde dicit 10 *De civitate Dei*, 31 cap., de Platonis loquens: 'id quomodo intelligant, viderint non esse hoc videlicet temporis, sed substitutionis initium. Sicut enim, inquiunt, si pes semper ex aeternitate fuisset in pulvere, semper ei subesset vestigium, quod tamen vestigium ex calcante factum nemo dubitaret; nec alterum altero prius esset, quamvis alterum ab altero factum esset: sic inquiunt et mundus et dii in illo creati semper fuerunt, semper existente eo qui fecit; et tamen facti sunt.' Nec unquam dicit hoc non posse intelligi: sed alio modo procedit contra eos. Item dicit 11 lib, 4 cap.: 'Qui autem a Deo quidem factum mundum fatetur, non tamen eum temporis volunt habere, sed suae creationis initium, ut modo quodam vix intelligibili semper sit factus; dicunt quidem aliquid, unde sibi Deum videntur velut a fortuita temeritate defendere.' Causa autem quare vix est intelligibilis, tacta est prima ratione. Mitum est etiam quomodo nobilissimi philosophorum hanc repugnantiam non viderunt. Dicit enim Augustinus in eodem lib. cap. 5, contra illos loquens de quibus in praecedenti auctoritate facta est mentio. 'Cum his enim agimus qui etiam Deum corporum et omnium naturarum quae non sunt quod ipse Creator est, nobiscum sentiunt': de quibus postea subdit: 'Isti Philosophi ceteros nobilitate atque auctoritate vicerunt.' Et hoc etiam patet diligenter consideranti dictum eorum qui posuerunt mundum semper fuisse: quia nihilominus ponunt eum a Deo factum, nihil de hac repugnantia intellectuum sentientes." *Ed. cit.*, pp. 319b-329a.

²⁴ "Ergo illi qui tam subtiliter eam percipiunt, soli sunt homines, et cum eis oritur sapientia." *Ed. cit.*, p. 320a.

no longer present nor future as if it had not yet arrived, yet their movements proceeding through successive times change from future into past. And thus they cannot be coeternal with the creator, in whom we cannot say that there has been any movement that no longer lasts, or that there will be any movement that has not yet occurred." In a similar way in his commentary on Genesis he said: "The trinity, because its nature is absolutely changeless, is so eternal that nothing can be coeternal with it." And he says something similar in *Confessiones* 11, 30.²⁵

His final argument concerns the problem of the actual existence of infinitely many human souls if the world were eternal. This is a question which had concerned him throughout his career, and he does not manage to solve it here, saying simply that it is a very difficult problem, but that the argument "is not to the point, because God *could* have created the world without men or souls; or he *could* have created men when he did, even if he had created the world from eternity. ... And furthermore, it has not yet been demonstrated that God could not create an actually infinite number of things."²⁶ This last point, quite un-Aristotelian, would bear much fruit in the next century, and so far as I know has not yet been definitively resolved, even by mathematicians.

His conclusion reiterates the uneasiness he had felt twenty years before in his commentary on the *Sentences*: "There are also other arguments which I shall pass over at present, either because I have replied to them

²⁵ "Unde patet quod etiam non sequitur quod quidam objiciunt, scilicet quod creatura aequaretur Deo in duratione; et quod per hunc modum dicatur, quod nullo modo potest esse aliquid coaeternum Deo, quia nihil scilicet potest esse immutabile nisi solus Deus: quod patet per hoc quod dicit Augustinus 12 *De civitate Dei*, cap. 15: 'Tempus, quoniam mutabiliter transcurrit, aeternitati immutabili non potest esse coaeternum. Ac per hoc etiam si immortalitas Angelorum non transit in tempore, nec praeterita est quasi jam non sit; nec futura quasi nondum sit; tamen eorum motus, quibus tempora peraguntur in futuro, in praeteritum transeunt. Et ideo Creatori, in cujus motu dicendum non est vel fuisse quod jam non sit, vel futurum esse quod nondum sit, coaeterni esse non possunt.' Similiter etiam dicit 8 super Gen.: 'Quia omnino immutabilis est illa natura Trinitatis, ob hoc ita aeterna est ut ei aliquid coaeternum esse non possit.' Et similia verba dicit in 11 lib. *Confessionum*." *Ed. cit.*, p. 320a-b.

²⁶ "Sed haec ratio non est ad propositum: quia Deus mundum facere potuit sine hominibus et animabus: vel tunc etiam potuit hominem facere quando fecit, si etiam totum alium mundum fecisset ab aeterno; ... Et praeterea adhuc non est demonstratum, quod Deus non possit facere ut sint infinita actu." *Ed. cit.*, p. 320b.

elsewhere, or because some of them are so weak that their very weakness seems to confer probability upon the contrary side."²⁷

Along with the *Sentences* commentary of Bonaventure, Thomas's *De aeternitate mundi* formed the background for most subsequent discussions of the eternity of the world during the remainder of the Middle Ages, and although many subsequent authors missed the points Thomas had made and composed inept rejoinders, many others, on both sides of the debate, undertook a more penetrating analysis of the problem in their efforts to clarify the obscure points of the question, especially regarding the characteristics of the infinite and the implications of being created from nothing.

Siger, on the other hand, as was appropriate to his status as a master of arts, composed a strictly philosophical question, entitled *De aeternitate mundi*,²⁸ and he emphasized the fact that he was treating the question only "according to the philosophers." It is not at all in the mold of the traditional theological questions on the subject, and indeed, despite its title, it treats the eternity of the world only by implication. The crux of Siger's argument is that since a species is not composed of its individuals, but exists as a universal in the mind, it is not generated in the way its members are (i.e., *per se*), but only *per accidens*. So even though no individual human being is eternal, nevertheless the species "man" is, since a man can only be generated by another man, and there can therefore have been no first man. He even uses the example of the chicken and the egg to show that neither could come first, but there must always be a chicken before an egg and an egg before a chicken.

He proposes to investigate whether, according to the procedures of Aristotle, the argument is demonstrative which claims to prove that the human species, or the species of any generable and corruptible individuals, began to exist after they had completely not existed. The argument, he says, can be formulated in two ways. First, that since each individual of the species came to be after it had not been, therefore the species came to be after it had not been. And second, that universals, just as they do not have being except in singulars or in a singular, thus neither do they have "being caused" except in singulars. Therefore, since humanity is a thing caused by God because it is a certain being of the

²⁷ "Aliae etiam rationes sunt a quarum responsione supersedeo ad praesens, tum quia eis alibi responsum est, tum quia quaedam earum sunt ita debiles quod sua debilitate contrariae parti videntur probabilitatem affere." *Ed. cit.*, p. 320b.

²⁸ I have used the edition of Bernardo Bazán, *Siger de Brabant Quaestiones in Tertium De Anima, De Anima Intellectiva, De Aeternitate Mundi* (Louvain/Paris, 1972), which supersedes that of W. J. Dwyer, C.S.B., *L'Opusculum de Siger de Brabant "De aeternitate mundi"* (Louvain, 1937).

world, it is necessary that it came into being in some determined individual, just as the heaven and whatever else is caused by God. Then with an easy arrogance and in a condescending way, he adds that although the argument is easy to refute, since it is inconsistent, it nevertheless touches on matters worthy of consideration, and so he will spend a little time treating it.

He divides the treatise into four parts: first, how the human species, and universally the species of any other generable and corruptible things, are caused; second, responding to the aforesaid arguments and the way they are formed; third, because the aforesaid arguments understand universals to be in singulars, whether this is and how it is true; and fourth, since the assertion that some species began to be when it previously did not exist implies that potency precedes act in duration, "we shall see whether, according to the procedures of philosophy, one should say that one precedes the other in duration, for this is a question of some difficulty."

He then proceeds to consider each of the four in detail. He quickly points out the inconsistency of the arguments. The human species is caused by God by generation, but only *per accidens*, not *per se*.

Hence it is that the human species, according to the philosophers, always exists, nor did it begin to be when it had previously completely not existed. For to say that it began to be when it had previously not existed is to say that some of its individuals began to be when there had not previously been another individual of that species. And since the human species is not caused otherwise, according to the philosophers, than through the generation of one individual before another, it itself begins to exist because universally every generated thing begins to exist; begins nevertheless to exist when it existed and had previously existed. ... And since they find no individual human to be eternal, deceived by a frivolous argument, they think that they have demonstrated that the entire species began to exist after it had previously not existed.²⁹

²⁹ "Hinc est quod species humana, secundum philosophos, semper est, nec esse incepti cum penitus non praeuisset. Dicere enim quod ipsa esse inceperit, cum penitus non praeuisset, est dicere aliquod eius individuum esse inceperit ante quod non fuerit aliud individuum illius speciei. Et cum species humana non aliter causata sit, secundum philosophos, nisi quia generata per generationem individui ante individuum, ipsa esse incepti, cum universaliter omne generatum esse incipiat; incipit tamen esse cum esset et praeuisset. ... Et cum in individuis hominis nullum aeternum inueniant, totam speciem incepisse cum penitus non praeuisset demonstrasse putant, frivola ratione decepti." *Ed. cit.*, pp. 117-20.

He concludes his remarks on the specific arguments by saying that "we will not attempt here to demonstrate the opposite of their conclusion, but only to point out the defect of their argument, which is clear from what has been said."³⁰

The third and fourth parts, he admits, are not strictly necessary for his purposes, but they touch upon the subject, and so he will digress slightly and talk about them. The third concerns the assertion that universals exist in particulars. A universal is not a substance, and in universals there are two things, namely the thing denominated universal, such as man or stone, which is not in the mind, and the intention of universality, which is in the mind; and thus the universal, in that respect in which it is a universal, exists only in the mind. The fourth concerns the question whether potency precedes act in duration. After a long discussion, he concludes that there are different ways of looking at the problem, but in an absolute sense it is not necessary that one precede the other temporally.

The explicit, lacking in several MSS, reasserts the limited purpose stated at the beginning of the treatise:

Here ends the treatise of master Siger of Brabant concerning a certain argument of some people, reputed to touch upon the generation of men, from the nature of whose generation they think they have demonstrated that the world began, although neither this nor its opposite is demonstrable, but it must be held on faith that it began.³¹

This is not a particularly impressive performance. It is restricted to refuting a quite weak argument for a creation *ex tempore*, and to do this it assumes as proven the crucial proposition, namely that there was no first man. But Siger also treats the subject in other places, notably in his questions on the *Physica* and those on the *Metaphysica*, where he presents the standard arguments of the philosophers but makes it clear that his notion of the relationship between philosophy and theology is the same as that which will be more fully articulated by Boethius of Dacia.

In his questions on the *Physica* he writes:

³⁰ "Non conamur autem hic oppositum conclusionis ad quam arguunt ostendere, sed solum rationis defectum, qui apparet ex praedictis." *Ed. cit.*, p. 120.

³¹ "Explicit tractatus Magistri Sigeri de Brabantia super quadam ratione ab aliquibus reputata generationem hominum tangente, ex cuius generationis natura putant se demonstrasse mundum incepisse, licet neque hoc, neque eius oppositum sit demonstrabile, sed fide tenendum quod inceperit." *Ed. cit.*, p. 136.

I say that every making follows upon matter. But that making which precedes all making is not natural. Nor is every operation from a subject and matter, and the making of matter precedes matter and every making of nature. Therefore if there were no making except only that of nature, there would be no making at all.³²

In question 10 of book 3 of the same work, replying to the argument that there cannot be a first movement because a prior movement would be necessary to bring it from potency into act, he says:

But I say that the first movement can be new, and there can be no reason for this, because one cannot give a reason for miracles; because if he could it would not be a miracle. A physicist would argue that bodies cannot be resurrected and brought back to life the same in number when they have once been corrupted -- which is contrary to faith. Therefore, if you try to solve these questions by reasoning, you will not be able to do so unless you are willing to deny its principles.³³

And he makes some similar remarks later in the same work:

[B]ut according to faith, the world is new and motion is new. And there is not a reason for this, because when someone adduces a reason, he does not posit faith, for faith can be neither science nor opinion. ... But nothing is demonstrated by faith; it is believed on authority.³⁴

And in question 20, he sounds much like Alexander or Bonaventure:

³² "[D]ico quod non omnis factio sequitur materiam; illa autem factio non est naturalis quae praecedat omnem factionem. Nec omnis operatio ex subiecto et materia est, et factio materiae materiam praecedat et omnem factionem naturae. Unde, si non esset factio nisi naturalis solum, penitus esset nulla factio." Siger of Brabant, *Quaestiones in Physicam*, MS Munich, Clm. 9559, fol. 6C-D, quoted from Omar Argerami, "La cuestión 'De aeternitate mundi'; Posiciones doctrinales," 4. "El 'De aeternitate mundi' de Boecio de Dacia," *Sapientia* 28 (1973), 99-124, p. 119.

³³ "Dico tamen quod motus primus potest esse novus, et huius non potest dari ratio, quia miraculorum non est dare rationem, quia sic, non esset miraculum. Arguat physicus quod corpora eadem numero non possunt resurgere et reviviscere, cum semel corrumpuntur; quod est contra fidem. Ideo, si solvere velis ad rationes, non potes, nisi eius principia velis negare." *Op. cit.*, fol. 11A, quoted from Argerami, *art. cit.*, p. 120.

³⁴ "... sed secundum fidem mundus novus est, et motus est novus. Et non est ratio ad hoc, quia cum aliquis adducit rationem non ponit fidem. Fides enim non potest esse scientia nec opinio; ...fide autem nihil demonstratur, auctoritati creditur." *Op. cit.*, fol. 19B, quoted from Argerami, *art. cit.*, p. 122.

Such are the opinions of the philosophers. But I believe that every made thing is new, and that it is not necessary that every made thing have a principle from which it might be made. And when the philosophers argue that something is not made unless it be possible for it to be through its own nature, it must be said that that which is thus is said according to transmutation, and thus they argue well (for that which is made through transmutation has that from which it was made); or something is made from nothing, not through transmutation, and thus their arguments do not hold. Or it might be said that it is not necessary that the made thing have that from which it might be made; indeed the power of the most powerful Agent is sufficient for this.³⁵

In his questions on the *Metaphysica* he says:

One should not try to investigate by reason those things which are above reason or to refute arguments for the contrary position. But, since a philosopher, however great he may be, may err on many points, one ought not to deny the Catholic faith because of some philosophical argument, even though he does not know how to refute it.³⁶

There is nothing in any of this to suggest that Siger is insincere or that his distinction between the natural and the miraculous is merely a subterfuge.

Nor is he an "Averroist," if by that term is meant a blind follower of Averroes. In his commentary on the *Liber de causis*, he remarks on an argument of Averroes: "But this position is heretical in our faith, and it

³⁵ "Ita ergo opinati sunt philosophi. Credo tamen quod omne factum novum est, et quod non oportet omne factum habere principium ex quo fiat. Et cum arguunt philosophi, quod non fit aliquid nisi possibile sit ipsum esse per suam naturam, dicendum quod illud quod sic est, dicitur aut secundum transmutationem, et sic bene arguunt (illud enim quod fit per transmutationem habet ex quo fit); aut fit aliquid ex nihilo, non per transmutationem, et sic non valet eorum ratio. Vel dicendum quod non oportet factum habere ex quo fiat, immo sufficit ad hoc potentia agentis potentissimi." *Op. cit.*, fol. 18B, quoted from Argerami, *art. cit.*, p. 124.

³⁶ "Ne debet aliquis conari per rationes inquirere quae supra rationem sunt, vel rationes in contrarium dissolvere. Sed cum philosophus quantumcumque magnus in multis possit errare, non debet aliquis negare veritatem catholicam propter aliquam rationem philosophicam, licet illam dissolvere nesciat." C. A. Graiff, *Siger de Brabant. Questions sur la Métaphysique* (Louvain, 1948), p. 140.

also appears to be irrational."³⁷ He was a very acute independent philosopher, as well as a devout Christian, and he was fully abreast of the contemporary theological disputes at Paris. He was capable of modifying his position in the face of convincing arguments, as when Aquinas corrected his views on the unity of the intellect. As a philosopher, his doctrine was very close to that of Aquinas, whom he greatly admired. In his superb study of Siger's works and doctrine, A. Zimmermann has shown that Dante was correct in placing Siger, "who taught unwelcome truths on the street of straw," alongside Thomas Aquinas in Paradise.³⁸

Boethius of Dacia, also a member of the arts faculty, wrote quite a different kind of work, with a different purpose. Although it is entitled *De aeternitate mundi*, it is in fact a plea for peace and for the independence of philosophy in its own sphere. It is moderate, reasoned, subtle, and perceptive -- a call for peace, not through surrender, but through the realisation that different sciences have different principles and different methods, and that each is competent within its proper sphere; and that when this is realized, it becomes clear that there is no real disagreement among the contending parties.

In his lengthy opening sentence, he sets out his purpose in writing:

Because, just as it is foolish to seek a reason in those things which ought to be believed from the law, which nevertheless do not have a reason for themselves -- because he who does this seeks what it is impossible to find -- and to be unwilling to believe them without a reason is heretical; thus to be willing to believe without a reason those things which are not self-evident but nevertheless have a reason for themselves is not philosophical; therefore, wishing to bring into agreement the teaching of the Christian faith with the doctrine of Aristotle and other philosophers concerning the eternity of the world, so that the teaching of faith might be held more firmly even though in some points it cannot be demonstrated -- lest we incur foolishness by seeking a proof where none is possible or incur heresy by refusing to believe what ought to be held on faith because it cannot be proved rationally (as was the custom of certain philosophers whom no law pleased because its articles could not be demonstrated); and also so that the teaching of the philosophers might be saved, to the extent that their arguments are able to reach conclusions -- for their teaching contradicts the Christian

³⁷ "Sed ista positio [Averrois] in fide nostra est haeretica, et irrationalis etiam sic apparet." Siger, *Comm. in Librum de causis*, q. 27, ed. Dondaine and Bataillon, pp. 254-61, quoted by Albert Zimmermann, "Dante hatte doch Recht," *Philosophisches Jahrbuch* 75 (1967-68), 206-17, on p. 209, n. 37.

³⁸ Zimmermann, *art. cit.*, pp. 212-14.

faith on no point, except for those who are not too bright -- for the teaching of the philosophers depends upon demonstration and sure reasons possible in matters about which they speak, but faith depends upon many miracles and not on arguments, for that which is held because it is concluded through reasoning is not faith but science -- and that it might become clear that the arguments of certain heretics have no force through which, contrary to the Christian faith, they hold the world to be eternal, let us inquire about them by reason, namely that the world is eternal.³⁹

He then proceeds to dispute successively three propositions: that the world is not eternal; that the world could be eternal, because no contradiction arises from this supposition; and that the world is eternal. He includes nearly all the arguments of the tradition, many of them in an interestingly original way, and shows in the process that he is well read in theological literature, not only the works of the Fathers, but also, like Siger, the recent treatises and disputations of the Parisian theologians. But this stylized disputation simply served as an example of his larger problem, to which he comes in his Solution.

He begins by asserting both the rights and the limitations of philosophy:

First, it must be diligently considered that there can be no question which is disputable by reasoning that a philosopher ought not to dispute and determine; how it has truth in it, to what extent it can be grasped by human reason. And this declaration is because all the reasons through which it is disputed are taken from things; for otherwise they would be figments of the intellect. But a philosopher teaches the natures of things; for just as a philosopher teaches being, so the parts of philosophy teach the parts of being. ... Therefore the philosopher must determine every question through reasons, and he who says the contrary does not know what he is talking about.⁴⁰

³⁹ *Boetii de Dacia Tractatus de aeternitate mundi*, ed. Géza Sajó (Berlin, 1964), pp. 31-32. This work was discovered by Sajó in 1948 and was published by him from a single MS, *Un traité récemment découvert de Boèce de Dacie De mundi aeternitate* (Budapest, 1956). The following year M.-T. d'Alverny, "Note sur deux manuscrits du 'De aeternitate mundi,'" *AHDLMA* 22 (1965), 101-112 called attention to two additional MSS. There are now known to be five MSS, on the basis of which Sajó re-edited the work in 1964. Our references are to the 1964 edition.

⁴⁰ "Primo hic diligenter considerandum est quod nulla quaestio potest esse, quae disputabilis est per rationes, quam philosophus non debeat disputare et determinare, quomodo se habeat veritas in illa, quantum per rationem humanam comprehendi potest. Et huius declaratio est, quia omnes rationes per quas disputatur, ex rebus acceptae sunt:

Then he shows why neither the natural philosopher, the mathematician, nor the metaphysician can prove that there is a first motion and that the world is new. First, and at greatest length, he considers the natural philosopher:

That a natural philosopher cannot do this is shown by accepting two self-evident propositions. The first of these is that no practitioner can cause one to concede or deny anything except from the principles of his science. The second supposition is that although nature is not a first principle simply speaking, it is nevertheless a first principle in the genus of natural things, and the first principle which a natural philosopher can consider. ... From this also, it happens manifestly that, if someone diligently considers what we have said, a natural philosopher cannot consider creation ... for how does a natural philosopher consider that to which his principles do not extend? And since the making of the world, or its production in being, could not be generation, as is self-evident, but is creation, it happens that the creation of the world, or its production in being, is taught in no part of natural science, because that production is not natural and does not pertain to the natural.⁴¹

Then he considers the problem of whether the teachings of the philosophers are opposed to revealed truths:

But if you oppose to this that this is the truth of the Christian faith and also truth simply speaking that the world is new and not eternal, and that creation is possible, and that there was a first man, and that a dead man will return to life without generation

aliter enim essent figmentum intellectus; philosophus autem omnium rerum naturas docet: sicut enim philosophia docet ens, sic partes philosophiae docent partes entis, ... ergo omnem quaestionem per rationes disputabilem habet philosophus determinare, et qui contrarium dicit, sciat se proprium sermonem ignorare." *Ed. cit.*, pp. 42-43.

⁴¹ "Quod autem naturalis non potest hoc ostendere, declaratur sic, accipiendo duas suppositiones per se notas, quarum prima est: quod nullus artifex potest aliquid causare, concedere vel negare nisi ex principiis suae scientiae. Secunda suppositio est: quod, quamvis natura non sit primum principium simpliciter, est tamen primum principium in genere rerum naturalium, et primum principium quod naturalis considerare potest. ... Ex hoc etiam contingit manifeste, quod si quis diligenter inspexerit quae iam diximus, quod naturalis creationem considerare non potest. ... Quomodo enim naturalis illud considerat ad quod sua principia non se extendunt? Et cum factio mundi, sive productio eius in esse non possit esse generatio, ut de se patet, sed est creatio, ex hoc contingit quod in nulla parte scientiae naturalis factio mundi, sive productio eius in esse docetur, quia illa productio naturalis non est et ideo ad naturalem non pertinet." *Ed. cit.*, pp. 43-45.

and numerically the same, and that numerically the same man who before was corruptible will be incorruptible, and that in one species there were atoms of these two differentia, namely corruptible and incorruptible, although a natural philosopher could not cause these truths or know them because the principles of his science do not extend to such difficult and hidden works of divine wisdom, nevertheless he ought not to deny these truths. For although one practitioner cannot cause or know from his principles the truths of the sciences of others, he nevertheless ought not to deny them. Therefore, although a natural philosopher cannot know or assert, from his own principles, those things which were said above, because the principles of his science do not extend to such things, he nevertheless ought not to deny them if another should posit them, not however as if they were true by reason, but by a revelation made by another higher cause.⁴²

He then gets to his main point,

that just as these two propositions can be held simultaneously: 1- that the first motion and the world are new through higher causes; and 2- nevertheless they are not new through natural causes and natural principles; thus it can be simultaneously held, if someone should inquire carefully, that the world and the first motion are new, and that the natural philosopher, when he denies that the first motion and the world are new, speaks the truth, because the natural philosopher denies the world and first motion are true as a natural philosopher, and this is to deny that it is new from natural principles. ... And because a natural philosopher, considering only the powers of natural causes, says that the world and first mover cannot be new according to these principles, but the Christian faith, considering a higher cause than nature, says that the

⁴² "Si autem opponas, cum haec sit veritas christianae fidei et etiam veritas simpliciter quod mundus sit novus et non aeternus, et quod creatio est possibilis, et quod primus homo erat, et quod homo mortuus redibit vivus sine generatione et idem numero, et quod ille idem homo in numero qui ante erat corruptibilis, et sic in una specie atoma erunt istae duae differentiae corruptibile et incorruptibile, quamvis naturalis istas veritates causare non possit, nec scire, eo quod principia suae scientiae ad tam ardua et tam occulta opera sapientiae divinae se non extendunt, tamen istas veritates negare non debet. Licet enim unus artifex non possit causare vel scire ex suis principiis veritates scientiarum aliorum artificum, non tamen eas negare debet. Ergo, licet naturalis haec quae praedicta sunt, ex suis principiis scire non possit, nec asserere, eo quod principia suae scientiae ad talia se non extendunt, non tamen debet ea negare, si alius ea ponat, non tamen tanquam vera per rationes, sed per revelationem factam ab aliqua causa superiori." *Ed. cit.*, p. 46.

world can be new from that cause, therefore they do not contradict each other on any point.⁴³

A mathematician, he says, cannot prove that the world is new, but it makes no difference to him whether it is or not; his principles are unaffected one way or the other.

And a metaphysician would have to be able to demonstrate the form of the divine will, upon which alone the creation of the world depends, in order to prove the world was new.

Likewise, he who cannot demonstrate it to have been the form of the divine will that it wished from eternity to produce the world in the hour in which it was made, cannot demonstrate the world to be new or coeternal with the divine will, because the thing willed is from the willer according to the form of the will. But the metaphysician cannot demonstrate such to have been the form of the divine will from eternity; for to say that the metaphysician could demonstrate this is not only like guesswork, but even, I believe, madness. From where would a man have an argument through which he might perfectly investigate the divine will?⁴⁴

And he concludes:

Thus therefore it is clear that there is no contradiction between the Christian faith and philosophy concerning the eternity of the world, if the things said above are carefully looked at, just as we shall also make clear, with God's help, in other questions in which the Christian faith and philosophy seem to disagree superficially and to men who do not consider the matter carefully. Therefore we say

⁴³ "... sicut simul stant motum primum et mundum esse novum per causas superiores, et tamen non esse novum per causas naturales et principia naturalia, sic simul stant, si quis diligenter inspiciat, mundum et motum primum esse novum et naturalem negantem mundum et motum primum esse novum dicere verum, quia naturalis negat mundum et motum primum esse novum sicut naturalis, et hoc est ipsum negare ex principiis naturalibus esse novum; ... Et quia naturalis, solum considerans virtutes causarum naturalium, dicit mundum et motum primum non posse esse novum ex eis, fides autem christiana, considerans causam superiorem quam sit natura, dicit mundum posse esse novum ex illa, ideo non contradicunt in aliquo." *Ed. cit.*, pp. 47-48.

⁴⁴ "Item, qui non potest demonstrare hanc fuisse formam voluntatis divinae, ut ab aeterno voluerit mundum producere in hora in qua factus est, ille non potest demonstrare mundum esse novum nec coaeternum voluntati divinae, quia volitum est a volente secundum formam voluntatis; sed metaphysicus non potest demonstrare talem fuisse formam voluntatis divinae ab aeterno: dicere enim quod metaphysicus possit hoc demonstrare, non solum figmento, sed etiam, credo, cuidam dementiae simile est; unde enim homini ratio, per quam voluntatem divinam perfecte investiget?" *Ed. cit.*, p. 50.

that the world is not eternal but is created *de novo*, although this cannot be proved by reasons, as has been seen above, just as some other things also which pertain to faith, for if they could be demonstrated, they would not be faith but science. Therefore, in behalf of faith one should not use sophistical reason (as is clear by itself); nor dialectical reason, because this cannot reach a sure conclusion, but only opinion, and faith ought to be firmer than opinion; nor demonstrative reason, for then faith would only concern those things which can be proved.⁴⁵

And in an eloquent peroration, he sums up his case:

Therefore there is no contradiction between faith and the philosopher. So why do you grumble against the philosopher, since you concede the same things with him? You should not believe that a philosopher, who placed his whole life in the pursuit of wisdom, contradicts the truth of the Catholic faith in anything; rather, you should study more, because you have little understanding with respect to philosophers, who were and are the wise men of the world, so that you might understand what they are saying. For the words of a professor ought to be understood for the better, nor is it of any force what certain evil people say, doing their best to find arguments inconsistent with some truths of the Christian faith, which nevertheless beyond doubt is impossible. For they say that a Christian, insofar as he is a Christian, cannot be a philosopher, because by his law he is forced to destroy the principles of philosophy. That is false, because a Christian concedes that a conclusion reached through philosophical arguments cannot eventuate otherwise through those things through which it was concluded, and if it be concluded through natural causes. That a dead man does not return to life immediately, numerically the same, this he concedes cannot happen otherwise through natural causes through which it was concluded. Nevertheless he concedes that this can happen otherwise through a higher cause, which is the cause of all nature and of all caused being.

⁴⁵ "Sic ergo apparet manifeste quod nulla est contradictio inter fidem christianam et philosophiam de aeternitate mundi, si praedicta diligenter inspiciuntur, sicut etiam manifestabimus deo auxiliante in ceteris quaestionibus, in quibus fides christiana et philosophia superficietenus et hominibus minus diligenter considerantibus videbuntur discordare. Dicimus ergo quod mundus non est aeternus, sed de novo creatus, quamvis hoc per rationes demonstrari non possit, ut superius visum est, sicut quaedam alia etiam quae pertinent ad fidem: si enim demonstrari possent, non esset fides, sed scientia. Unde pro fide non debet adduci ratio sophistica, sicut per se patet, nec ratio dialectica, quia opsa non facit firmum habitum, sed solum opinionem, et firmior debet esse fides quam opinio, nec ratio demonstrativa, quia tunc fides non esset nisi de his quae demonstrari possent." *Ed. cit.*, pp. 51-52.

Therefore the Christian of subtle understanding is not forced by his law to destroy the principles of philosophy, but he saves faith and philosophy by doing violence to neither. However, if someone, whether constituted in dignity or not, should not be able to understand such difficult matters, then he should obey the wise man and believe the Christian law, not because of sophistical argument, because it is deceptive; not because of a dialectical argument, because it does not make so firm a condition as faith is ...; nor through a demonstrative argument, both because this is not possible in all the things which our law posits, and because such an argument makes scientific knowledge ... and faith is not science. Hence to adhere to the law of Christ and to believe what it teaches makes glorious the author of that law, Christ, who is God, blessed through all the ages. Amen.⁴⁶

Boethius's point is that a natural philosopher must begin with the principles of natural philosophy and must use rational arguments as his tool for discovering knowledge. He is investigating the world of nature and its laws. But there is another, higher order, that of the supernatural, where his principles do not apply. Concerning this order one can only have belief, because it is not accessible to reason. So, while admitting that things may be one way as a result of God's supernatural operation,

⁴⁶ "Ideo nulla est contradictio inter fidem et philosophum. Quare ergo murmuras contra philosophum, cum idem secum concedis? Nec credas quod philosophus qui vitam suam posuit in studio sapientiae, contradixit veritati fidei catholicae in aliquo, sed magis studeas, quia modicum habes intellectum respectu philosophorum qui fuerunt et sunt sapientes mundi, ut possis intelligere sermones eorum. Sermo enim magistri intelligendus est ad melius, nec valet quod dicunt quidam maligni ponentes studium suum ad hoc quod possint invenire rationes repugnantes in aliquo veritati christianae fidei, quod tamen procul dubio est impossibile. Dicunt enim quod christianus, secundum quod huiusmodi, non potest esse philosophus, quia ex lege sua cogitur destruere principia philosophiae. Illud enim falsum est, quia christianus concedit conclusionem per rationes philosophicas conclusam non posse aliter se habere per illa per quae concluditur et si concludatur per causas naturales. Quod mortuum non redibit vivum immediate idem numero, hoc concedit non posse aliter se habere per causas naturales per quas concluditur; concludit tamen hoc posse se aliter habere per causam superiorem quae est causa totius naturae et totius entis causati. Ideo christianus subtiliter intelligens non cogitur ex lege sua destruere principia philosophiae, sed salvat fidem et philosophiam neutram corripiendo. Si autem aliquis, in dignitate constitutus sive non, tam ardua non possit intelligere, tunc obediatur sapienti et creadatur legi christianae, non propter rationem sophisticam, quia ipsa fallit, nec propter rationem dialecticam, quia opsa non facit ita firmum habitum sicut est fides, ... nec per rationem demonstrativam, tum quia non est possibilis in omnibus quae ponit lex nostra, tum quia ipsa facit scientiam, ... et fides non est scientia. Hinc legi Christi quemlibet christianum adhaerere et credere secundum quod oportet faciat auctor eiusdem legis Christus gloriosus qui est Deus benedictus in saecula saeculorum. Amen." *Ed. cit.*, pp. 60-62.

he nevertheless holds that the philosopher, as a philosopher, must affirm or deny things about nature only in accordance with natural principles.

Boethius's view of the natural order owes more to previous developments in Latin European thought than to Aristotle. Aristotle had failed to make a distinction between natural and supernatural, just as many of Boethius's conservative opponents did, but while many of the conservatives were injecting theological principles into science, Aristotle had included God within the cosmos. It was Boethius's refusal to include God in nature that distinguishes his thought from that of Aristotle. God is infinitely above his creation. What he made (i.e., the world) has its own laws, but these do not include coming into being in an absolute sense. The latter occurs by God's inscrutable will and unlimited power. Since Boethius insists that each science is competent within its own sphere, one does not use philosophical techniques to investigate the resurrection of the dead or the creation of the first man, because these things are impossible in the order of nature. They may be true nonetheless, but we hold them to be true on the basis of faith, not of reason.

Although many of the details of Boethius's "nature" come from Aristotle, its essential characteristics and its relationship to God are derived from the thought of the twelfth-century cosmogonists, who held that nature had sufficient power to bring about its own effects and was a worthy object of study in its own right.⁴⁷ Robert Kilwardby, a Dominican who is often grouped with the conservatives, expressed an opinion very similar to Boethius's at just about the same time and denied that God could directly move anything in local motion naturally, although He could, of course, do so supernaturally.⁴⁸

Boethius is restating in a more sophisticated way the position of Abelard, namely that the creation and original arrangement of the world was a miracle and had no other cause or explanation than the will of God, but that nature was given sufficient power at the beginning to bring about its own effects henceforth.⁴⁹ A corollary of this is that human reason, although competent to discover and explain the workings of nature, cannot explain the miraculous, which has no natural cause.

⁴⁷ See Richard C. Dales, "A Twelfth-Century Concept of the Natural Order," *Viator* 9 (1978), pp. 179-92.

⁴⁸ See Kilwardby's reply to a list of questions put by John of Vercelli in M.-D. Chenu, "Les réponses de S. Thomas et de Kilwardby à la consultation de Jean de Verceil (1271)," *Mélanges Mandonnet* I, pp. 191-222, the pertinent portions of which are also printed in Chenu, "Aux origines de la 'science moderne,'" *RSPT* 29 (1940), pp. 210-17.

⁴⁹ Abelard, *Hexameron*, PL 178:749. See Richard C. Dales, "A Twelfth-Century Concept of the Natural Order," pp. 182-83.

Boethius clearly does not teach a "double truth." He points out that no science can reach conclusions to which its principles do not extend. The natural philosopher investigates nature by rational principles, because nature is the sort of thing which can be known by such principles. It exhibits regularity, orderliness, and rationality. He not only should not, he cannot, investigate things which are miraculous, such as creation, because they have no *ratio*. They depend solely on the inscrutable will of God. Therefore a Christian can and must believe them, but he cannot prove them -- indeed, he can show that they could not happen as the result of natural processes. But that does not mean that they could not happen at all.

Faith as well as reason suffers if one improperly mixes it with science. Since one cannot prove with certainty many of the tenets of faith by reason, whether dialectical or sophistical, but can only reach opinion, since faith ought to be stronger than opinion, one should not try to support it by reasoning. Otherwise it would be only of those things which can be demonstrated.

A natural philosopher must, as a natural philosopher, deny that the world is new according to natural principles, but this only means that creation is not natural. There is no question of two contradictory things being simultaneously true. And this is the crux of his argument. As he says, it is not immediately obvious, and one must "diligently consider" what he has said in order to understand his point. Tempier and his cohorts were too alarmed by the surface meaning of his arguments to consider them diligently, as Boethius had asked. There is less excuse for modern scholars to make the same mistake. In no sense at all did Boethius teach the doctrine of the double truth, and he was correct in saying that there was no contradiction between philosophy and the Christian faith. As one reads the statements of his teaching in the condemned articles,⁵⁰ one notes that they have been perversely misunderstood in order to make them seem deserving of condemnation.

Boethius's reference in the last paragraph to those who are "constituted in dignity or not" suggests to me that this work was written after April 1, 1272. The person "constituted in dignity" would have been bishop Tempier, those who were "not" would have been the misguided majority of the arts faculty.

Boethius is obviously much indebted to Aquinas and to Maimonides and shares with them the doctrines that the eternity of the world is not demonstrable, that faith and science do not contradict each other, that

⁵⁰ Roland Hissette, *Enquête sur les 219 articles condamnés à Paris le 7 mars 1277*, has traced the sources of most of the condemned articles.

faith is believed on authority and much of it is above human understanding, and that the eternity of the world depends solely on God's will, which no man can know.

If people like Thomas and Boethius had been able to wield more influence, much of the bitterness of the 1270s could have been avoided. Both men agreed that according to faith the world is not eternal and that to believe otherwise is heretical. Both showed nevertheless that from the standpoint of philosophy it was at least possible for God to have made the world eternal and to prove otherwise would necessitate knowing the divine will. But feelings seem already to have been too intense for men of moderation and good will to receive a hearing.

At about the same time as these four major treatises were being written, and definitely after January, 1271,⁵¹ the Augustinian Giles of Rome (Aegidius Colonna) compiled a reasoned catalogue of the chief errors in theology of the non-Christian philosophers Aristotle, Averroes, Avicenna, Algazel, Alkindi, and Maimonides, giving specific citations to the works of the philosophers. An impressive twenty-seven MSS of this work, *De erroribus philosophorum*,⁵² survive. It is devoted exclusively to those questions which were causing grave concern at the moment. None of these was new. Avicenna and Aristotle had been available in Latin since the twelfth century, and the other authors certainly since *ca.* 1230-35, and their thoughts had appeared in considerable volume in the *Sentences* commentaries and questions of the preceding forty years. But now, because of personal, doctrinal, and corporate hostility, they had assumed a new importance.

Showing a keen insight into the most dangerous source of such doctrines, Giles devotes more space and intellectual effort to Avicenna than to any of the others. And a large proportion of these errors are those which imply or explicitly state that the world, time, and motion are beginningless. He is more severe on Aristotle than were Bonaventure and many other theologians, attributing the doctrine of the eternity of the world to him with no qualifying statement that he was speaking only as a natural philosopher. And his major complaint against Averroes is that he ridiculed the theologians, both Muslim and, as Giles understands him, Christian.

⁵¹ Since Giles always cites book lambda of the *Metaphysica* as book 12 in his commentary on *De generatione et corruptione*, and sometimes as book 12 in *De erroribus philosophorum*, the latter work must have been written after January 1271. See James A. Weisheipl, *Friar Thomas of Aquino*, p. 361.

⁵² Giles of Rome, *Erroribus philosophorum*, ed. Joseph Koch, tr. John O. Riedl (Milwaukee, Wisc., 1944).

Giles was a young man, probably a beginning theological student under Thomas Aquinas,⁵³ at the time he wrote this work, and he seems later to have altered his position significantly on the eternity of the world. His *Sentences* commentary is completely derivative on this question and of no intrinsic interest. But among the reasons for his exile from the Parisian theological faculty in 1278 seems to have been his opinion on the possibility of an eternally created world.⁵⁴ In any case, he cannot be considered as a member of the lunatic fringe of anti-philosophers. That this work should have been written by an essentially moderate, intelligent young man shows that concern over the teaching of the Parisian artists, whether well-founded or not, was fairly widespread.

Thomas Aquinas left Paris late in 1272 for Naples and died on March 7, 1274. In 1273, Bonaventure again preached a series of sermons at Paris, the *Collationes in Hexameron*. It would be a mistake to consider this work (or his previous two *Collationes*) as simply documents in a pamphlet war between conflicting Parisian factions. It is a magnificent literary work of religious mysticism, and it makes more clear than any of his other works his view of the place of philosophy in a Christian life. Philosophy, illuminated by faith, is the first step of a ladder leading to a vision of God. But it is only a first step, and in any case to employ it without the guidance of faith is to fall into certain error. He takes time to point out the errors it leads to, and again identifies the eternity of the world and the unity of the intellect as the most serious.

Shortly after preaching these sermons, Bonaventure left Paris, and a year later he too was dead. The field was left to the second team.

⁵³ P. Mandonnet, "La Carrière Scolaire de Gilles de Rome (1276-1291)," *RSPT* 4 (1910), pp. 480-99, on pp. 482-83.

⁵⁴ E. Hocedez, S.J., "La condamnation de Gilles de Rome," *RTAM* 4 (1932), pp. 34-58, on pp. 42-46.

CHAPTER NINE

THE CLIMAX OF THE CONTROVERSY

The controversy was not dying down, and the philosophers had not been cowed. Seeking advice from his former teacher, probably the most eminent living theologian in Europe at the time, the Dominican Gilles of Lessines wrote to Albert the Great sometime between 1273 and 1276,¹ asking his opinion on a list of fifteen propositions (thirteen of which had been condemned in 1270) which were being debated in philosophy at Paris by some of the more highly regarded masters. Of these, we are interested in the fifth and sixth, whether the world is eternal and whether there was a first man.

In his answer to the fifth, Albert begins by noting that the eternity of the world is a very old question, but he immediately warns that this position cannot be held on the basis of Aristotle's works, as Maimonides has shown. He then shows that the world is not eternal in the sense of not being caused, because everything in which there is an ordering necessarily has a cause, whatever that cause may be. He points out that local motion can only arise from some generator which, by giving form, gives motion. Therefore, that which gives motion to the heaven is necessarily a generator of both matter and form; and therefore the heaven and everything in it were generated according to substance and nature. But Avicenna and Algazel allow that the world was made through creation, although motion and the first mobile were not made through physical generation and will not end by a physical corruption. Then, after giving astronomical and mathematical examples of reduction to unity, he concludes that all things were made according to their being. "Therefore, they are not eternal in this way, because they do not have a principle of being according to substance and nature."² Albert has carefully stayed away from the problem of temporal duration and confined his remarks to the meaning of eternal as "not dependent on another for being."

¹ On the date, see Fernand Van Steenberghen, *Introduction à l'étude de la philosophie médiévale* (Louvain, 1974), pp. 454-55.

² "Non ergo hoc modo sunt aeterna, quod principium essendi secundum substantiam et naturam non habuerunt." *Alberti Magni De XV problematibus*, ed. B. Geyer (Münster i. W., 1975), p. 38a.

The sixth problem is one we have encountered in Siger's treatise on the eternity of the world, namely whether there was a first man. In his answer, Albert says that neither this position nor its contrary can be proved. And while it is true that that man can only be generated *naturally* from man, it is more reasonable that the first man was made through creation than that there was never a first man.³

It is doubtful that Giles found the guidance he was seeking in Albert's replies to these two questions. The real problem was whether the world could have had an infinite temporal extension in the past, and Albert avoided facing this issue, although he seems to have accepted the view which he attributed to Avicenna and Alfarabi that a created world was not inconsistent with a beginningless world. His remarks, as far as they go, are consistent with Aquinas's position. And on the question of whether there was a first man, Albert would only say that it was more probable that there was than that there was not.

But while there may have been hesitation and uncertainty among the Dominicans, the conservatives, both Franciscan and secular, continued to press their point of view. Between the years 1274 and 1276, there were three lengthy and comprehensive discussions of the eternity of the world, varying considerably in intrinsic merit but all insisting that God could not have made the world eternal. These three works are much alike in structure, doctrine, authorities, and specific arguments. Two of them begin by distinguishing the different ways "eternal" may be understood; they all claim that there are demonstrative arguments for the non-eternity of the world; they all depend on the claim that what is created must have had a temporal beginning and that God preceded the world not only by nature, but also by duration. In addition to the standard authorities Augustine, Boethius, Plato, and Aristotle, they also include Ambrose, *Hexaëmeron* and *De spiritu sancto*, Richard of St. Victor, *De trinitate*, Hugh of St. Victor, *De sacramentis*, and John Damascene, *De fide orthodoxa* (never cited by title). They are all directed against Aquinas, whose arguments are clearly very much in the minds of all three masters. Curiously, Bonaventure's position that philosophy is not an adequate instrument for the attainment of truth is absent, and all three men claim rather that it can be strictly demonstrated that the world could not have been eternal.

The first of these which we shall discuss, *Utrum deus creaverit vel creare potuerit mundum vel aliquid creatum ab eterno*, is contained in Laurentian MS. Plut. 17, sin. 7 among a large collection of questions by Franciscan

³ *Ibid.*, p. 38a-b.

masters.⁴ It has no indication of authorship or date, but its inclusion in a collection of Franciscan questions creates the presumption that its author was a Franciscan, and its doctrine is completely consistent with this; and its contents, especially the summary of the state of the question early in the Response, indicate a date after the death of Aquinas and before the condemnation of 1277. Its author belonged to the extreme party, which included William of Baglione, attacking the artists explicitly, arguing in heated language against the doctrine of Aquinas, and insisting that the non-eternity of the world must not only be held on faith, but can be proved by certain and demonstrative arguments. Its author was a man of limited intelligence but many words, attempting thoroughness but often losing track of the direction of the discussion.

This question follows immediately one by the same master on creation from nothing, a juxtaposition we also find in Bonaventure's commentary on the *Sentences*. Although the Response has been carefully prepared, the presentation of the pro and con arguments is quite close to the original disputation. Many of the arguments are familiar, but there are also some original ones on both sides. There is also an interesting mixture of authorities. On the *quod non* side, in addition to the expected Augustine, *Liber de 83 quaestionibus*, Anselm, *Monologion*, and Richard of St. Victor, *De trinitate*, are cited Aristotle, *Meteorologica*, *Physica*, and *De generatione*, ps.-Aristotle, *Liber de causis* and *De vegetabilibus*, and Algazel, *Metaphysica*; and the *contra* arguments, in addition to Aristotle, either cite or are derived from Augustine, *De trinitate*, *Liber de 83 quaestionibus*, and *De civitate Dei*, Anselm, *Liber de concordantia praescientiae et praedestinatione*, and ps.-Dionysius, *De divinis nominibus*. This is clearly not a clash between Aristotle and the Arabs on one side and Augustine on the other.

The beginning of the Response takes us back to William of Durham, with an attempt to distinguish the ways "eternal" is used in Scripture. In this, it follows the salutary example of William of Baglione in attempting to specify the meaning of "eternal" being used. Whereas William of Baglione had distinguished three senses, this master distinguishes five, though not with great clarity. They are: 1- *per divine duracionis ydempnitatem* (i.e., Boethius's definition); 2- *per divine duracionis conformitatem, scilicet secundum principii et finis interminabilitatem* (i.e., infinite temporal extension); 3- *quantum ad finis inicialis continuitatem* (this would seem to mean having a beginning but not an end, the traditional definition of perpetuity); 4- *quantum ad duracionis temporalis unitatem* (i.e., coexten-

⁴ This MS has been expertly described by Victorin Doucet, "Quaestiones centum ad Scholam Franciscanum saec. XIII ut plurimum spectantes in codice Florentino Bibl. Laurenziana, Plut. 17 sin. 7," *Archivum Franciscanum Historicum* 26 (1933), pp. 183-202 and pp. 474-87. This question is discussed on p. 199.

sive with the whole of time, William of Conches's "total definition," derived from Augustine); and 5- *<quantum ad> diuturne diucius prolixitate* (i.e., for a longer time than any given length). Then, having distinguished the five meanings, he immediately proceeds to confuse the criteria of simplicity, invariability, and lacking beginning and end, although he says that the last of these, i.e., infinitely extended time, is the one he wishes to discuss.

This introductory section is followed by a very interesting summary of current views on the question. The first is the position of the great philosophers, Plato and Aristotle, and their commentators, who held that the world not only could be, but is, without a temporal beginning. But, he says, it would be tedious and laborious, as well as fruitless, to investigate this view in detail, and since there are certain members of the arts faculty who maintain this view, he will omit it for the present.

Of the theologians, all agree that we know by revelation that the world was created in (or with) time. But some hold that this must be held on faith alone, and that it cannot be proved demonstratively, and so even though the world had a beginning, it could be eternal. They base this position on authority and reason. Their principal authority is Aristotle's statement in the *Topica* that the eternity of the world is one of those difficult problems for which we cannot provide sure answers, and they also cite Hebrews 11.1, Gregory the Great, and Augustine (all authorities which Aquinas had cited). They also say that creation depends entirely on the divine will and so cannot be investigated by reason, and that the articles of faith (he does not say *all* the articles of faith) cannot be proved by certain arguments. In addition to these, they also cite Aristotle's definition of an instant; the argument reported by Augustine that if God could have made the world older by any amount of time, he could have made it infinitely old; and the contention that "nothing" could neither assist nor impede God's creative activity. All of these arguments, he says, are founded on the contention that the arguments for the contrary position are not necessary.

Against these arguments and authorities, our author opposes a barrage of authorities of the saints and of arguments to prove that the non-eternity of the world is not only to be held on faith, but can also be proved by sure and necessary arguments. That there are such arguments he establishes by citing Augustine *De civitate Dei* 12, 14 (out of context) and Richard of St. Victor, *De trinitate* 1. Then, following the procedure of John Pecham, he presents his arguments under three heads: *ex parte dei creantis*, *ex produccione creacionis*, and *ex condicione eternitatis*. The first argument from the standpoint of the creative God concedes that if God had created necessarily, creation must have been eternal; but since he creates freely, creation had to be *ex tempore*. Henry of Ghent makes this

the heart of his argument. The second, arguing from God's immensity, assumes that lacking a temporal beginning is equivalent to being immense in an absolute sense, as God is; if a creature were immense, it would be deprived of its termini and thus would have no duration. "Therefore, just as it is impossible for anything but God to be immense, so it is impossible for anything but God to be eternal."⁵ The third, drawn from Richard of St. Victor, argues that if the world were eternal, two things would be immense, which implies a contradiction.

The first group of arguments taken from the production of creation assumes that what is created cannot be eternal and concludes that since the world was created, it cannot be eternal. Among them is an argument of the type we have noted among the English masters, and especially Pecham: Let that part of time in which God created the world be called A. Either A had another part of time before it, or it did not. If it had another, therefore something preceded it in duration, and thus it was not eternal. But if it did not have another part of time before it, therefore it was first, and thus time had a beginning and a terminus of its duration in the past. Therefore it was not eternal.

The second group, indebted to Bonaventure's concept of *versio*, which was also used by Pecham and is here attributed to its ultimate source, Damascenus, is taken from the mutation of creation. They are essentially reformulations of the old argument that whatever goes from non-being to being necessarily had its non-being before its being. But that which had its non-being before its being cannot be eternal. The author concedes that these arguments are not demonstrative if the order of non-being to being is only of nature and not of duration. Then he claims that this order is necessarily one of duration, and that these arguments are demonstrative; and he cites the authority of Richard of St. Victor, Anselm, and Damascenus to show that this order is necessary.

He follows this with a group of arguments which he claims are uncontestedly demonstrative. First he tries to prove that the order of non-being to being must be of duration and not only of nature. (This incidentally is quite contrary to Augustine and also ignores the very able analysis of Pecham, of which the author seems otherwise to be aware.) His argument is that things which are before and after by nature only can and must exist at the same time, but those which are before and after in duration can never exist at the same time. Therefore, if a creature had being after non-being according to the order of nature only, it would have its being and non-being at the same time, which is absurd. (This com-

⁵ "Ergo sicut impossibile est aliquid aliud a deo esse inmensum, ita impossibile est esse aliquid aliud a deo eternum." *MS cit.*, fol. 155va.

pletely ignores Aquinas's brilliant treatment of the same problem in his *De aeternitate mundi*.) The second argument claims that in any kind of "turning" (*versio*) -- man from not-man, white from non-white, just from unjust, good from not good, or being from non-being -- there is necessarily an order of succession, and not of nature only. The third, taken from Pecham (see above, ch. 7, n. 46), claims that the same rules hold for "turning into nothing" as for "turning into something." Since, if the world should turn back into nothing, there would necessarily be an order of succession, the same is true for the opposite process, namely turning into something.

This is followed by a group of arguments from the condition of eternity, the first ostensive, the others *per impossibile*. The ostensive argument is adapted from Bonaventure: "God could never make the world so large in so great a place but that he could make it larger in a greater place. Therefore, by the same argument, he could never make a time so long but that he could make a longer time. But God could not make anything larger than eternity. Therefore he never can or could make the world eternal."⁶

Then follows a group of arguments *ad impossibile*. The first is based upon the impossibility of an actual infinite, utilising the problem of infinite souls and repeating Grosseteste's list of consequences; the second denies the possibility of an infinite series of efficient causes; and the third, restating Bonaventure's paradoxes, denies the possibility of ordering, traversing, or adding to the infinite.

And he concludes triumphantly:

Therefore, from all the foregoing arguments, it is clear that it is not only held on faith but also concluded by necessary arguments that the world, or anything created, not only is not but could not be eternal or eternally created by God.⁷

This author shows an unfortunate tendency to misrepresent the views of his opponents in order to set up straw men, an inability to make or maintain clear distinctions, and a prolixity which renders even strong arguments which he borrowed from others unconvincing because of the

⁶ "Deus nunquam potuit facere mundum ita magnum in magno loco quin adhuc potuerit facere maiorem in maiori loco. Ergo eadem ratione nunquam potuit facere tempus ita diuturnum in diuturno tempore quin adhuc potuerit facere diuturniorem in diuturniori tempore. Sed deus non potest facere aliquid diuturnius eterno. Ergo nunquam potest vel potuerit facere mundum eternum." *MS cit.*, fol. 157ra.

⁷ "Ex universis igitur premissis rationibus patet quod non solum fide tenetur, sed etiam necessario concluditur mundum, nec etiam aliquid creatum, non solum non esse sed nec potuisse esse eternum vel a deo eternaliter creatum." *MS cit.*, fol. 157va.

flaccid way they are presented. He is a good example of the least able becoming the most extreme. Although he was in all likelihood a Franciscan, he has ignored, overlooked, or misunderstood much of value in the works of his contemporaries and recent predecessors in the Order. His mind would have suited him well to become a member of bishop Tempier's commission. We do not know that he did so, but he represents precisely the group which played the largest role in the condemnations.

It is a pleasure, after struggling through the inept treatise of the previous master, to turn to the question of Matthew of Aquasparta, a young master at the time, who would become lecturer at the papal curia, succeeding John Pecham, in 1279, Minister General of the Franciscans in 1287, and cardinal in 1288. Although Matthew was not a thinker of the caliber of Bonaventure or Aquinas, he shows a measure of inventiveness in his defense of the conservative position, he was well-read, and he had the ability to express his arguments clearly and economically. Since he was regent in theology during the years 1275-1277, this disputation undoubtedly took place sometime during that period, and before the condemnations of March 7, 1277. It shows very clearly the influence of Bonaventure and Pecham, although it presents a more conservative position.

The title, *Quaeritur, supposito secundum fidem quod mundus non sit aeternum sed productus ex tempore, utrum potuit esse ab aeterno vel utrum deus potuit ipsum ab aeterno producere*, makes clear its limited purpose. It begins with a series of twenty arguments *quod sic*, most of them derived from the works of Augustine but including also ps.-Dionysius, *De divinis nominibus*, Damascenus, Gregory the Great, Aristotle, ps.-Aristotle, *Liber de causis*, and Ecclesiasticus. These are followed by seven arguments *contra*, all of which appeared in some form in the question of the preceding anonymous master.

The Response begins by distinguishing three senses in which the world may be understood to be eternal. The first, which is attributed to Boethius, is "duration lacking beginning, end, succession, and variation"; but no philosopher, he says, has claimed that the world is eternal in this sense. The second is William of Conches's "total definition": "duration having a beginning, end, mutability, and variation, but coterminous with the creature itself." In this way, not only is it possible that the world is eternal, indeed it is necessary, since the world and time began together. The third meaning of eternity is duration lacking a beginning and end but having succession and variation. "And thus the world can be understood as eternal or *coeternal with its maker*, not because of an identity of duration, but because of a certain conformity because of an infinity of

extension."⁸ Thus right at the beginning of his Response Matthew betrays his confusion of the modes of being of divine simplicity and infinite temporal extension. He attributes this view to Plato and Aristotle, but he considers them both to be creationists and explains their position by Augustine's example of the footprint in the dust.

He then states his question: "Although we might suppose that [the world] was not made thus, we ask whether it was possible for it to be made thus, and whether God could make it thus," and he proceeds to summarize the varying opinions on the subject, among which those of Aquinas figure prominently. Some people, he says, say that it is possible that God could have made the world *ab aeterno*. But this is impossible on the assumption of the truth of faith.

Matthew then asserts that the arguments concerning the infinity of souls, the infinity of revolutions, and the infinity of generations are sufficient to disprove the eternity of the world or to prove the impossibility of existing from eternity in this universe and in the form in which the world is, for they prove demonstratively that the world was not and could not have been *ab aeterno*. These arguments are not demonstrative *propter quid*, or *a priori*, or ostensibly, but they are demonstrative *quia*, *a posteriori*, and leading to impossibilities, and the only rebuttals to them are sophistical. This is a much more responsible approach than was taken by the preceding master, and Matthew goes on to do a very good job of establishing his case. He has picked the weakest point in Aquinas's arguments and has exploited the paradoxes of the infinite developed by Bonaventure, claiming that the replies to these paradoxes are all sophistical.

In answering the argument that an infinite number of souls does not imply an impossibility, he repeats Grosseteste's list of consequences, which he probably got from Bonaventure. To Aquinas's rather weak objection to the impossibility of traversing the infinite, he opposes Bonaventure's claim that in fact an infinite series would have had to be got through in order to get to today, which is impossible. To Aquinas's argument, derived from Averroes, that an infinite series of generating and generated men implies nothing impossible because man generates man only *per accidens*, he devises a very strong rebuttal:

⁸ "Et sic potest intelligi mundus aeternus vel Factori coaeternus, non propter durationis identitatem, sed propter quandam conformitatem, quia propter extensionis infinitatem." *Fr. Matthaei ab Aquasparta, O.F.M., S.R.E. Cardinalis Quaestiones Disputatae De Productionem Rerum et De Providentia*, ed. Gedeon Gál, O.F.M. (Quaracchi, 1956), q. 9, p. 208.

Although this man would not be the father of another or generate another insofar as he was the father of another or was generated by another, nevertheless the natural and necessary order is that man is generated by man, so that this man is generated by another, he in turn by yet another, and so on until we arrive at a first. For if there is not a first, there will not be subsequent men. ... For it is completely true that it is impossible to traverse the infinite. But if the world is eternal, it is necessary that infinite men existed, of which one is necessarily from another, and if this were the case it would have been impossible to have arrived at this [present] man. Therefore, since man is the essential and *per se* cause of man, and although the fact that he is generated by another is a cause *per accidens*, nevertheless the accident is necessary, and it is impossible to proceed to infinity in generating and generated things. Therefore the response [of Aquinas and Averroes] is completely sophistical.⁹

But, although these arguments are sufficient because their rebuttals can only be sophistical on the assumption that we are speaking of the world as it exists, Matthew takes a larger view and presents a number of arguments of wider applicability, and sets out to prove that neither the world nor any creature could be eternal and that God could not make it so.

The first group is taken from the nature of duration and attempts to establish necessary links among infinity, simplicity, and simultaneity. Of these, the first holds that if the world were eternal, time, which is a kind of creature, would be actually infinite, which is inconsistent with being a creature. The second holds that actual infinity is consistent only with utter simplicity, and simplicity with complete indivisibility and simultaneity. Therefore, if time were infinite in act, it would be *totum simul*. But the essence of time is succession. Therefore, time cannot be infinite because then it would not be time and would not differ from eternity. The third holds that if time were not *totum simul*, we could never have arrived at the present, because the infinite cannot be traversed.

⁹ "[Q]uamvis hic homo non sit pater alterius vel alium generet in quantum filius alterius vel ab alio generatus, tamen ordo naturalis et necessarius est quod homo ab homine generetur, ita quod iste ab illo et ille ab alio, et ille ab alio; ergo est devenire in aliquem primum. Si enim non sit primus, nec erunt postremi. ... Omnino enim verum est quod impossibile est infinita transire. Si autem mundus sit aeternus, necesse est infinitos homines exstitisse, quorum unus necessario est ab alio, ac per hoc impossibile fuit usque ad istum pervenisse. Ergo quia homo est causa hominis per se essentialis, et quamvis ut generetur ab alio sit causa per accidens, tamen istud accidens necessarium est, impossibile est in generantibus et generatis abire in infinitum. Ideo responsio omnino sophistica est." *Ed. cit.*, p. 212.

The second group consists of arguments based on the implications of creation from nothing and repeats the arguments and authorities we have met many times before. The third is a group of similar arguments from the standpoint of the creature or producible thing. And the fourth, taken from the standpoint of the producing principle, argues that an infinite world is repugnant to divine power, wisdom, and goodness.

Matthew's question is a model of judicious evaluation of the arguments on both sides of the question. He has a sharp eye for the weaknesses in the case of his opponents, and in exploiting these he makes extensive use of Bonaventure's paradoxes of the infinite. But despite the moderate tone and careful reasoning of this question, it firmly maintains the extreme conservative position that the non-eternity of the world can be proved by demonstrative arguments at least *quia*, if not *propter quid*. He shares with Bonaventure and the moderate conservatives the conviction that being created from nothing necessarily implies having a temporal beginning of existence, but unlike them he also continues to confuse divine simplicity with infinite temporal extension. He sometimes makes the distinction, as in his argument that if time were infinite it would not be time, where he tries to give a demonstration of Grosseteste's dictum, taken over by Bonaventure, that infinitely extended time is a conceptual error. But more often he forgets it, as near the beginning of the Response, where he holds that an eternal world would be coeternal with its maker because of a certain conformity of duration. But Matthew is not nearly so bad in this regard as were many of the authors we have studied, and he nowhere states explicitly that God preceded the world by duration as well as by nature, although this seems to be implied in his assertion that a temporally infinite world would be equal to God in duration. To attribute this doctrine to him, we would have to establish precisely what he meant by "duration," and the ambiguity of this word is one of the major problems in these discussions.

Whereas Matthew of Aquasparta had concentrated on trying to eliminate the ambiguity in the problem of duration, Henry of Ghent concentrated on trying to establish a firmer foundation for the position that what is created from nothing must necessarily have a temporal beginning. Henry was a secular, who became master of theology in 1275. However, he had been in Paris at least since 1265,¹⁰ and so probably also took his degree in arts at that university. In this case he would have been a member of the same nation, the Picard, as Siger of Brabant. The Quod-

¹⁰ *Henrici de Gandavo Quodlibet* I, ed. R. Macken, O.F.M. (Louvain, 1979), pp. VIII-IX.

libetal disputation which he held during the Christmas season of 1276¹¹ shows a thorough grounding in the literature and techniques of philosophy. Even as a conservative master of theology, he showed a great respect for Aristotle and Avicenna.

Henry combined two questions, numbers 7 and 8, in this Quodlibet, namely whether a creature could exist from eternity and whether it is repugnant to a creature to have existed from eternity. It is the latter formulation which he prefers to argue, and in his survey of opinions at the beginning of his Solution, he confines himself to those which define creation as similar to emanation, the result of the necessity of the nature of God and the immutability of his will.

It is the common opinion of all, both philosophers and Christians, says Henry, that a creature can have only participated being. In one way, a creature is not understood as being a non-being by the nature of its essence, and that its production was similar to the production of the Son by the Father. But in the second way, a creature is seen as having, of itself and its own nature, only non-being. This second way can further be understood in two ways. Some philosophers say that a creature has non-being before being only in the understanding (in fact, Aquinas held this view), and Avicenna calls this way of having non-being before being creation. In the second way, Catholics hold that a creature has non-being before being really (*in re*) and not only in the understanding, and further that it is produced not by the necessity of God's nature, but by his free will. And so, according to this last way of understanding creation, our question is: "Whether it is repugnant to a creature to have existed from eternity and therefore that God could not have produced it from eternity, or not."

Some people hold that beginningless existence is not repugnant to a creature, and the fact that the world was produced *ex tempore* was the sole result of the divine will, for which no cause should be sought, and that this must be held on faith alone, since it cannot be proved demonstratively. The reason for this is that the *quod quid est* of a creature abstracts from all duration.

Henry has here passed silently from Avicenna and Aristotle to Aquinas and Boethius of Dacia. But he quickly moves back to Avicenna and devotes the remainder of his Solution to refuting the notion that Avicenna's concept of creation is valid. If the world had begun in the way "the philosophers" say (i.e., by emanation), then the examples they give (of a footprint in the dust, a reflection in the water, light and shadow, the sun and its light) would be applicable. But it is possible to prove that the

¹¹ *Ibid.*, pp. IX-XII, XVII.

world began and has its being from God in the way the Catholics maintain, if one makes certain assumptions which ought to be made, in accordance with right reason.

First he disposes of the argument that the *quod quid est* of a creature abstracts from all time by making a comparison with an eclipse of the moon, whose actual existence does not abstract from all time. He then says that in an absolute sense the world not only began *ex tempore*, but also that it could not have existed from eternity, and that this is repugnant to its nature; and he cites Ambrose, Augustine, and Avicenna as authorities for his view. "And that a creature having being after non-being, which non-being it has from its own nature *in re*, not only in the understanding, should necessarily begin after non-being by duration, Avicenna clearly proves at the end of book 5 of his *Metaphysica*, in the last two chapters."¹² So Henry not only defends the position that the non-being of the world preceded its being by duration; he also attributes it to Avicenna.

He then tries to show that this is necessary, and in the process attacks one of Aquinas's characteristic doctrines, namely that the act of creating and conserving are the same. The action, he says, by which being is acquired to a thing, since it is sudden, indivisible, and completely lacking in temporal dimensions, necessarily preceded the action by which God conserves a thing in being afterwards.

Therefore, although a thing may henceforth be conserved in being so that it does not cease to exist because of the continuation of the act of conserving, nevertheless it could not exist earlier unless it should begin after non-being, because of the simplicity of creation by which being was acquired to it. Whence it is clear that those people speak completely foolishly who say that God creates and conserves by the same action.¹³

This, he says, is because God can only create a thing in a substance other than himself (*in aliena substantia*), through which it has, of itself, non-being; whereas in things generated by way of emanation, he generates from his own substance, through which they have no power of not

¹² "Et quod creatura habens esse post non esse, quod non esse habet ex se natura sua in re, non in intellectu solo, necessario incipiat post non esse duratione, manifeste probat Avicenna in fine V^{ae} Metaphysicae, duobus ultimis capitulis." *Ed. cit.*, p. 36.

¹³ "Quamquam ergo res in posterius possit conservari in esse, ut non desinat esse propter continuationem actus conservandi, non tamen in ante posset esse nisi incipiat post non esse, propter simplicitatem creationis qua ei acquiritur esse." *Ed. cit.*, p. 37.

being.¹⁴ In this argument Henry seems to reify non-being, calling it an *aliena substantia*, a kind of thing in itself.

This is followed by an argument which achieved some notoriety, and would frequently be referred to during the succeeding half-century. It is developed from Aristotle's dictum in *De interpretatione* 9 and employed in *Metaphysica* 6, 4 and 5, that "what is, when it is, necessarily is." Henry uses this to refute an argument for the possibility of the eternity of the world by an analogy with predestination. This latter argument holds that

just as that which was predestined from eternity to be, could have not been predestined from eternity to be, or could have been predestined from eternity not to be; thus although the the world from eternity had its being from God and thus being was not acquired to it from him, because nevertheless by no necessity of nature or the nature of an immutable concomitant will the world has being from him from eternity, it could not have had being from him, and thus being could have been acquired to it from God, just as is now the case, according to faith.¹⁵

I have never come across this argument in medieval discussions of the eternity of the world, and indeed Henry seems to have invented it himself, according to his understanding of Aristotle and Avicenna. It seems to me that he takes a very dangerous path, for he constructs an argument proving that if the world had its being from God eternally and not *de novo*, it would be necessary that the world is eternal and impossible that it be created *ex tempore*, impossible too that it should ever cease to be, since it has in itself no tendency toward non-being. And so, in order to prove that God's free will could only have resulted in a creation *de novo*, Henry provides a powerful argument that it necessarily existed from eternity, something no other theologian or artist had done:

"What is, when it is, necessarily is"; also what was and what will be. In none of these is there any potency toward the contrary for the same time as the act was posited, but if there is a potency toward the contrary, this is posited in some other time in which the act could be im-

¹⁴ "Quia igitur Deus non potest res creare nisi in aliena substantia, per quam necessario habeat de se non esse, non se sua substantia, per quam de se haberent non posse non esse, ideo dicit Augustinus ..." *Ed. cit.*, p. 39.

¹⁵ [S]icut id quod ab aeterno praedestinatum est fore, ab aeterno potuit non fuisse praedestinatum fore, vel fuisse praedestinatum non fore, sic, etsi mundus ab aeterno habuerit esse a Deo et ita non sit ei esse acquisitum ab eo, quia tamen nulla necessitate naturae aut voluntatis immutabilis concomitantis naturam mundus habet esse ab eo ab aeterno, potuit non habuisse esse ab eo, et ita potuit sibi fuisse acquisitum a Deo sicut nunc est secundum fidem." *Ed. cit.*, p. 40.

peded, because it is contingent. For in this way, although "what is, when it is, necessarily is," nevertheless not necessarily absolutely, because there was a potency in a preceding time through which the act could have been impeded, and for this reason it was able absolutely not to be for the time when it is. And similarly what was and will be. Therefore, if something once was, and there was not ever a preceding potency through which its act of being for the time when it was could be impeded, it was absolutely necessary, because there was not any potency at all, neither of the existing thing nor of the efficient cause, through which it might have been prevented from existing. But if something always, even from eternity, had being, there never was a preceding potency through which its act of being might be impeded for some preceding instant. Therefore it is absolutely necessary that it always existed. Therefore, if a creature is posited always, even from eternity, to have had being from God, it is absolutely necessary that it always and from eternity existed; and if so, there was never from eternity, neither on the part of God nor of the thing, any potency through which it could have once not have existed. And thus a creature of the world, if it be posited to have had being from God from eternity, not only was being never acquired to it from God *de novo* from any beginning in time, but it is altogether impossible that it should ever have acquired being to itself from God *de novo* in some beginning of time. This is false simply speaking and impossible, since faith, which posits that the world was once made new by God, holds the contrary.¹⁶

The principal flaw in all these arguments is that they understand eternity, both from the standpoint of God's existence and action and that of the world, as unlimited temporal extension, and they therefore assume that God is involved in time, since the "before" and "after" elements of the arguments would be pointless if one assumes the simplicity of eternity.

But, having completed his argument, Henry warns that we, who are forced by the very truth of faith to hold that a creature receives being *ex tempore* from God and has no being of itself but only from God, must destroy the first foundation of the philosophers

by saying that every creature possesses the tendency that it might not be, even *in re*, unless it should receive its being from another. For if we should say that of its own nature it has the power to be, we shall necessarily have to concede all the other things asserted by them about the eternity and incorruptibility of the world. Whence, by denying the first [principle], we can say that the world has its being acquired from God, not from eternity. ... But we can

¹⁶ I have paraphrased the argument from *ed. cit.*, pp. 40-42.

and must say consequently that by no necessity, either of nature or will, does the world have being from God.¹⁷

And he concludes his Solution with a quotation from Aristotle, *Physica* 3, 4:

It is perfectly clear that what is predestined from eternity to be, could not be predestined to be, or be predestined not to be. But a creature having being from God from eternity could not from eternity have non-being from him, nor have being acquired in any manner, as has been determined above, according to what the Philosopher has well and elegantly said, that *in perpetuis*, which always have being, *non differunt posse et esse*.¹⁸

In his zeal to prove Aquinas and Boethius of Dacia wrong in holding that an eternal world is possible and that its being eternal or *de novo* is solely the result of the divine will, Henry has placed the entire conservative position in a precarious situation. Concentrating solely on the point that having being from God eternally rather than acquiring it from him *ex tempore* is inconsistent with God's free will and contrary to the tenets of Christianity, Henry bases his entire case on the unintelligibility of an eternally created world. If it could be demonstrated that a creature could have non-being of its own nature and still have its being eternally from God, his entire argument would fall, and it appears to me that Aquinas made a very strong case for its intelligibility. Henry has not met Thomas on his own ground but has stated the situation in such a way that it appears that if he is wrong, Avicenna is necessarily right, and the middle position, that the actual case is the result of God's will, is denied.

If we confine our attention to the question of the eternity of the world, we may distinguish three parties at Paris during the 1260s and 1270s. The first is made up of masters who are moderate in their stance but on the left of the existing spectrum. It is exemplified by such people as

¹⁷ "... dicendo quod omnis creatura, in quantum huiusmodi, ex natura sua simpliciter habet quod non sit etiam in re, nisi habeat esse ab alio. Si enim diceremus quod de natura sua est quod sit, necesse habebimus concedere omnia alia inducta ex hoc ab eis circa mundi aeternitatem et incorruptibilitatem. Unde, illo primo negato, possumus dicere quod mundus habet esse sibi a Deo acquisitum, non ab aeterno. ... Possumus autem et debemus dicere consequenter, nulla necessitate, nec naturae nec voluntatis, mundum habere esse a Deo." *Ed. cit.*, p. 44.

¹⁸ [P]atet plane quod ab aeterno praedestinatum fore potuit non praedestinari fore vel praedestinari non fore, habens autem esse a Deo ab aeterno non potuit ab aeterno habere non esse ab eo neque habere esse acquisitum ullo modo, ut praedeterminatum est, secundum quod et bene et eleganter dicit Philosophus quod *in perpetuis* quae semper habent esse, *non differunt esse et posse*. *Ed. cit.*, p. 46.

Boethius of Dacia, Thomas Aquinas, and Siger of Brabant. These men all grant the truth of Christian revelation, but, following Maimonides, claim that some of the articles of faith, including the eternity of the world, can be neither proved nor disproved demonstratively. The second is conservative but responsible, represented by such men as Bonaventure and Pecham. This party did not confuse simple eternity with endless temporal extension but did insist that creation from nothing necessarily implied a temporal beginning. One of its characteristic positions is that, although philosophy is often useful and necessary in seeking the truth, if it be unaided by faith, it must necessarily fall into error. The third party is that of the radical right and is best exemplified by the anonymous master of Vat. Ottob. 185, William of Baglione, the anonymous Franciscan of Laurentian MS Plut. 17, sin. 7, Matthew of Aquasparta, and Henry of Ghent. Its characteristic doctrines are an insistence that God preceded the world not only by nature but also by duration, and that the non-eternity of the world could be proved demonstratively. It was undoubtedly this third group which was primarily responsible for the 1277 condemnation, although a widespread uneasiness, such as we see in the *De erroribus philosophorum* of Giles of Rome, about the teaching of some of the artists probably gave the extreme position more support than it deserved.

All these are traditional in the sense that they are developments of identifiable tendencies in Latin thought extending back into the twelfth century and beyond. There are no Aristotelians, Averroists, or Augustinians among them. Indeed, each party is indiscriminate in its use of authorities. Aristotle is a major source of the arguments of the middle party, as Augustine, Gregory the Great, and St. Paul are for the first. And the chief inspiration for the radical right seems to have been not a venerable work of the Patristic age, but Richard of St. Victor's *De trinitate*, while Henry of Ghent is powerfully indebted to Avicenna and Aristotle, and is patently un-Augustinian on this subject. All three found Averroes heretical on certain doctrines and tended to blame him for misinterpreting Aristotle in a way contrary to the Christian faith, while all three accept much from Avicenna, although they all concede that on some points, especially the beginningless creation of the world, his teaching is contrary to Christianity. And, although the arguments of "the philosophers" for the eternity of the world play a much larger role in the discussions during the 1260s and 1270s than they had previously, a significant proportion of such arguments continued to be drawn from the various writings of Augustine. The entire problem of the intellectual antecedents of the three parties and their relationship to each other is thus much more complicated than is commonly assumed. I see no advantage in attempting to simplify it.

By the time Henry held his disputation, feelings were already running high. On September 2, 1276 all teaching at Paris, except in logic and grammar, was forbidden to be held "in secret and private places." On November 3 of that same year, Siger of Brabant, along with two other masters of whom we know nothing else, Goswin de La Chapelle and Bernier of Nivelles, were summoned to appear before Simon du Val, the Inquisitor of France, but, apparently foreseeing this, they had already fled to the papal court for protection. The pope had heard reports of the problems of Paris and on January 18, 1277 sent a letter to the bishop of Paris instructing him to investigate the matter and report his findings to the Holy See.

Bishop Tempier's response was all out of proportion to his charge. He appointed a commission to draw up a list of heretical propositions, and on March 7, 1277, three years to the day after the death of Thomas Aquinas, he issued a condemnation of 219 propositions and imposed extremely heavy penalties for disobedience.¹⁹

Nearly all scholars agree that the list of condemned propositions was hastily and carelessly compiled, that it contains repetitions, contradictions, misrepresentations, and a number of propositions of unquestioned orthodoxy, as well as some to which the question of orthodoxy is irrelevant. We shall examine the list only as it concerns the question of the eternity of the world. If one takes the large view, there are about thirty propositions having to do with the eternity of the soul, of the intelligences, of the heavens, and of matter, as well as the specific question of the eternity of the world.

The first group of propositions we shall examine involves the misrepresentation of a point of view. We shall do well to start with the doctrine of the double truth, which was enunciated in the epistolary prologue -- "they say that things are true according to philosophy but not according to the Catholic faith, as if there were two contrary truths"²⁰ -- and which is coupled with the eternity of the world in proposition 90: "That a natural philosopher ought simply speaking to deny the newness of the world, because it rests on natural causes and natural reasons; but a Christian ought to deny the eternity of the world, because this rests on supernatural causes."²¹ One need only compare this statement with what Boethius of Dacia actually wrote to realize that, whether through ig-

¹⁹ *Chartularium Universitatis Parisiensis* # 473, I, pp. 543-55.

²⁰ "Dicunt enim ea esse vera secundum philosophiam, sed non secundum fidem catholicam, quasi sint due contrarie veritates." *Chart.* I, p. 543.

²¹ "Quod naturalis philosophus debet negare simpliciter mundi novitatem, quia innititur causis naturalibus, et rationibus naturalibus. Fidelis autem potest negare mundi eternitatem, quia innititur causis supernaturalibus." *Chart.* I, p. 548.

norance or intent, it misstates his point. And one notes the same misrepresentation in proposition 184, "That creation is not possible, although the contrary must be held on faith."

Closely related to these is another large group, including many matters other than the eternity of the world, which represent various tenets of the philosophers, especially Avicenna and Aristotle but sometimes Averroes as well, as having been maintained as true in an absolute sense rather than as the conclusions of philosophy, which cannot take supernatural causes into account. Among these one in particular is of interest, since its condemnation represents very closely Henry of Ghent's view. This is proposition 99: "That the world, although it was made from nothing, nevertheless was not made *de novo*; and although it went from non-being to being, nevertheless its non-being did not precede its being by duration, but by nature only."²² This is derived from Avicenna and was considered only as an intelligible possibility by Albert the Great, Boethius of Dacia, and Thomas Aquinas, but its denial was central to Henry's argument, and it is here presented, as were all the condemned propositions, as though they were actually being maintained as true. The contention that the world's non-being necessarily preceded its being by duration as well as by nature was one of the two defining doctrines of the extreme conservative party, and of all the points at issue concerning the eternity of the world, it is the most difficult to maintain philosophically.

There is another group of propositions which denies the independent validity of philosophy. Proposition 145 holds: "That there is no question disputable by reason which philosophers ought not to dispute and determine, because its arguments are taken from things. It is philosophy's province to consider all things according to its different divisions." This and proposition 154: "That philosophers are the only wise men of the world," do indeed represent, in a somewhat exaggerated form, Boethius of Dacia's view of philosophy, and there is some room for argument on this point. But certainly neither of these propositions is heretical, although they might be galling to a theologian. The opposing view, represented by the condemnation, embodies an ancient tradition in Latin thought, expressed most forcibly during the preceding decades by Grosseteste, Bonaventure, and Pecham. It is however inconsistent with the stance of the radical right, which exhibits no fear of philosophy *per se* and which claimed that true demonstrations of creation *de novo* were possible.

²² "Quod mundus, licet sit factus de nichilo, non tamen est factus de novo; et quamvis de non esse exierit in esse, tamen non esse non precessit esse duratione, sed natura tantum." *Chart.* I, p. 549.

Given the quarrelsome atmosphere at Paris at the time, one can understand how and why the preceding propositions were condemned, however unjustly. But there are others whose inclusion seems to have been a matter of mere chance. One of these is the subjectivity of time, a view shared, with slightly different nuances, by Aristotle and Augustine. Proposition 200 states: "That *evum* and time are nothing *in re*, but only in apprehension." This aspect of Augustine's thought was largely ignored during the thirteenth century. But according to Hissette, it was cited by Siger of Brabant and by an anonymous artist from Aristotle²³ and thereby earned a place among the condemned propositions. It is difficult to see why anyone would consider it heretical.

One of the condemned propositions is simply an "evasion" of one of Bonaventure's paradoxes of the infinite, namely that if the world were eternal, an infinite number of revolutions of the sky would be comprehended by some created spiritual being, which is impossible. The evasion is that an infinite number of revolutions could however have been comprehended by God. The condemned proposition reads: "That an infinite number of revolutions of the sky preceded, which [revolutions] it is not impossible to be comprehended by God, but [is impossible to be comprehended] by a created intellect."²⁴ This seems totally orthodox.

Two propositions have to do with the interpretation of Aristotle's text. Proposition 89 holds: "That it is impossible to solve the argument of the Philosopher unless we say that the will of the First implies contradictions"; and proposition 91 says: "That the argument of the Philosopher demonstrating the motion of the sky to be eternal is not sophistical; and it is a wonder that intelligent men do not see this."²⁵ While I agree that Aristotle did, in all likelihood, teach the eternity of the world as a fact, I have tried to show that some portions of his writings seem to support the view that he did not. And in any case, this is a task for textual criticism rather than ecclesiastical condemnation.

Two others seem to be drawn from Plato's *Timaeus*, namely proposition 107, "That the elements are eternal, but they were made *de novo* in the arrangement which they now have" (this seems closer to Eriugena, condemned in 1210, that to anyone else I know), and proposition 203, "That the universe cannot end, because the first agent must eternally transmute

²³ R. Hissette, *Enquête*, p. 152.

²⁴ Number 101: "Quod infinite precesserunt revolutiones celi, quas non fuit impossibile comprehendere a prima causa, sed ab intellectu creato." *Chart.* I, p. 549.

²⁵ (89) "Quod impossibile est solvere rationes philosophi de eternitate mundi, nisi dicamus, quod voluntas primi implicat impossibilia." (91) "Quod ratio philosophi demonstrans motum celi esse eternum non est sophistica; et mirum, quod homines profundi hoc non vident." *Chart.* I, p. 548.

things alternately, now in this form, now in that; and similarly matter is naturally suited to be transmuted." This was a commonplace in twelfth-century treatises on the elements.

We must now try to understand what underlay the events of the decade from 1267-1277. It would seem that *either* bishop Tempier and those theologians who were behind the condemnations were dishonest (in attributing positions to men who had not held them), or stupid (in not understanding the doctrines at issue), or vindictive (in alleging heresy where none existed); *or* that the philosophers hypocritically hid behind a profession of faith while really holding heretical positions, and that their oral teaching (or the teaching of others of their group which has not come down to us) was much more radical and less guarded than their published works. Although there is not enough surviving evidence to tell us all we should like to know, it will help our understanding to keep several things in mind.

First is the fact that the more important battle going on at the University of Paris at this time, generating much more animosity and a more voluminous literature, was that between the secular and mendicant masters of theology.²⁶ Second, in view of this, is the fact that, barring indisputable evidence to the contrary, it is highly unlikely that Tempier, who had previously been a secular master of theology at Paris, would be unduly inclined to favor the Franciscans in any contest. Third, we do not know the membership of the 1277 committee which collected the condemned articles, only that it included Henry of Ghent, and we do not know precisely what his role was; and Henry was a secular master, although a conservative in theology. Fourth, we know that the distinction, to which Boethius of Dacia appealed, between the operations of the natural order, investigated by reason, and the supernatural actions of God, believed on faith, had been widely accepted by Parisian theologians, and especially by Franciscans, since the time of Philip the Chancellor and Alexander of Hales. Fifth is what little we can know about the religious attitudes of Siger of Brabant and Boethius of Dacia. It is, on the face of it, highly unlikely that any educated and intelligent person in the thirteenth century, in the mainstream of society and pursuing the traditional path of advancement, could be a skeptic in religion, especially when all the published statements of these two men affirm their personal Christian faith. We know that Siger was a canon of the cathedral chapter of Liège, and that when he felt himself in danger in Paris, he fled to the pope. We do not know the conditions of his residence at the Curia. His tragic

²⁶ See especially Decima Douie, *The Conflict Between the Seculars and the Mendicants at the University of Paris in the Thirteenth Century* (New York, 1954).

murder at the hands of his demented secretary may have appeared to his contemporary enemies as God's just punishment of a heretic, but such a judgment is not likely to carry much weight today. As for Boethius of Dacia, we know that at some time he became a Dominican,²⁷ and that he was not among those summoned by the Inquisition in 1276. It is quite possible therefore (but also quite beyond proof) that he had joined the order before 1276 and had been sent back to his homeland. And finally, Roland Hissette's meticulous study of the condemned articles shows a consistent pattern of conscious misrepresentation on the part of the committee, as well as allegations of heresy concerning doctrines which were completely orthodox. Hissette himself is fairly hard on the committee; I believe that his own study justifies a much harsher judgment, as has in fact been rendered by Omar Argerami²⁸ and Luca Bianchi.²⁹

The picture which emerges therefore, although it lacks the clarity one might wish for, is one of able and devout Christian philosophers and theologians being attacked for largely non-doctrinal reasons, and condemned by a dishonest and vengeful committee of theologians (and we do not know that they were predominantly Franciscans) who had the ear of a fairly unintelligent, though fearful and conservative bishop. The alleged doctrine of the double truth was a fiction; the position that the world was actually eternal was taught by no one; and the assertion that its non-eternity is not demonstrable is certainly not heretical and was at least forty years old in the Parisian milieu by this time -- hardly a dangerous novelty.

A group of theologians simply did not grant the independent validity of philosophy at all, and among these we must number Bonaventure, although his doctrinal positions in this battle were much less extreme than those of some other masters. If we are to dignify the dispute by considering it to be a genuine conflict of ideas, then the most important and most valid doctrine on the conservative side was that of Grosseteste, the anonymous English Franciscan, Gilbert of Tournai, Bonaventure, and Pecham, that philosophy unaided by faith must surely fall into error. Aquinas's insistence on keeping philosophy and theology separate and philosophizing as a philosopher led to his being lumped with the artists

²⁷ See Søren Skovgaard Jensen, "On the National Origin of the Philosopher Boethius de Dacia," *Classica et Mediaevalia* 24 (1963), pp. 232-79, on pp. 234-38, based on the Stams Catalogue, printed in *Monumenta Ordinis Fratrum Praedicatorum Historica* XVIII (Rome, 1936), p. 64, #63.

²⁸ "La cuestión 'De aeternitate mundi': Positiones Doctrinales," part 3, *Sapientia* 28 (1973), pp. 179-208, on pp. 207-208.

²⁹ *L'errore di Aristotile*, p. 180.

and incurring with them the hostility of those who denied that philosophy unaided by faith was an adequate instrument for the discovery of truth.

We have been looking at the condemnations only from the point of view of arguments about the eternity of the world, and this happens also to involve the doctrine of the double truth. The view might well be different from another perspective. In fact, when I was studying the de-animation of the heavens, I saw things quite differently,³⁰ although I did not in that case conduct so thorough an inquiry into the antecedents of the condemnations. I do, however, think it is wise to put aside preconceived notions of the condemnations and conduct each inquiry afresh.

³⁰ Richard C. Dales, "The De-Animation of the Heavens in the Middle Ages," *Journal of the History of Ideas* 41 (1980), pp. 531-550, especially pp. 545-46.

CHAPTER TEN

THE AFTERMATH OF THE CONDEMNATION

There is no consensus among historians concerning the effects or effectiveness of Tempier's condemnation. But it seems fairly evident that in the years immediately following 1277 the condemnation impaired the integrity of theological debate and in the beginning at least intimidated all who disagreed with the extreme conservatives among the theologians. The conservatives, pressing the advantage gained by Tempier's condemnation, were sensitive to any transgressions of the bishop's decree.

In about 1280, the English Franciscan William of La Mare published his *Correctorium*,¹ an attack on and "correction" of the doctrine of Thomas Aquinas. This was the first and most influential in a series of similar works and answers to them -- a depressing and sterile type of literature, which is nevertheless sufficiently important that we must take notice of it. Among the doctrines of Aquinas which William saw fit to "correct" are three points concerned with the eternity of the world: that matters of faith are to be believed and not known; that the fact that the world began is held by faith alone and cannot be demonstrated; and that one should not presume to demonstrate the articles of faith. The first and third positions, of course, were not those of Thomas; he only claimed that there were *some* articles of faith which could not be demonstrated but must be held on faith alone. But William goes far beyond Thomas and, relying on Richard of St. Victor's *De trinitate* 1, 4, claims with the extreme conservative party that there are not only probable but true and necessary arguments for the articles of Christian faith. This is particularly true of the beginning of the world, which, although it cannot be proved by demonstrations *propter quid*, can nevertheless be demonstrated by arguments *ad impossibile*, specifically the infinity of souls if the world were eternal and the impossibility of traversing the infinite. And he attacks Thomas for (allegedly) saying that we should completely beware of adducing demonstrations for matters of faith. The most important of his arguments on this point is his denial that God's will cannot be investigated. Aquinas, of course, never made such a claim. Following Maimo-

¹ Printed in *Les Premières Polémiques Thomistes: 1-Le Correctorium Corruptorii "Quare,"* ed. P. Glorieux, *Bibliothèque Thomiste IX* (Kain, 1927).

nides, he had said that those things which depend solely on God's will, and could have been different than they are, cannot be demonstrated. Since both an eternal world and a creation from nothing are possibilities, the only explanation for the actual state of affairs is the will of God. William completely misses the point when he claims that "after the creation of the world, God's will can be known by the fact of a (temporally) created world."²

Despite its sloppy philosophizing and misrepresentation of Thomas's views, William's *Correctorium* was adopted as an official document by the General Chapter of the Franciscans held at Strasbourg in 1282; only *lectores notabiliter intelligentes* were permitted to use Aquinas's works in their teaching, and then only with the *Correctorium* of William in their hands, *non in marginibus posititis, sed in quaternis*.³

But the moderate theologians do not disappear from the scene. In 1278, Giles of Rome, the same man who had prepared the *De erroribus philosophorum* and by now a bachelor in theology, was accused of maintaining condemned positions and, after an examination by Tempier and an *ad hoc* committee of masters, was denied the magisterial dignity and was expelled from the faculty of theology. The specific doctrines for which he was exiled are not specified in the contemporary sources, but Hocedez has done an admirable job of identifying them.⁴ If he is correct, the doctrine of the eternity of the world was among the causes of Giles's banishment. When he was readmitted to the faculty in 1285, after asking for and receiving papal assistance, Giles explained to the examining board under Tempier's successor that of three possible positions on the eternity of the world -- that the world could have existed from eternity; that it cannot be proven that the world is not eternal; or that it has not yet been proven that the world could not be eternal -- he had upheld only the last and weakest of these positions,⁵ although he conceded that some of his words might leave the impression that he had maintained the first.⁶ This would certainly seem to imply that this was one of the reasons for his exile, and, given the circumstances, one might wonder whether in fact he had not maintained at least the second position. This seems especially likely if

² "[S]ed post mundi creationem, ex ipso mundo creato sciri potest Dei voluntas." *Ibid.*, p. 34.

³ *Analecta Bollandiana*, ed. van Ortro, XVIII, 292, cited in Glorieux, *Le Correctorium*, p. IX.

⁴ E. Hocedez, "La condamnation de Gilles de Rome," *RTAM* 4 (1932), pp. 34-58.

⁵ Hocedez, "La condamnation," pp. 44-45.

⁶ See the texts quoted by Hocedez, "La condamnation," p. 46.

Mandonnet is correct in thinking that Giles had been a student of Thomas's during the latter's second Parisian regency.⁷

Shortly before Giles's readmission, in 1283 or 1284, the Franciscan Arlotto of Prato disputed a question on whether the world could have existed from eternity, forcefully maintaining the conservative position. Arlotto seems to have been a person of some importance in his own day, sufficiently well thought of that he was called to the position of Minister General of the Franciscan order in 1285. But very little written evidence of his life remains, and of his own compositions there survive only an encyclical letter, two doubtful sermons, and a question on the eternity of the world.⁸ He arrived at Paris, a student in theology and a Franciscan, about 1274, at the height of the furor between conservative and moderate masters, and his only extant disputed question shows that he was caught up in the battle on the side of the more conservative theologians.

This work, as we have it, is a *reportatio* and is extant in a single MS, Paris Bibl. nat. lat. 14726, on folios 180-184.⁹ There is no evidence that the text was corrected or reworked by Arlotto; quite the contrary. It is incomplete and repetitious, and it contains several clear mistakes. The responses ignore some of the arguments and answer some not recorded by the reporter. And portions of the work are so compressed and elliptical that they are not intelligible.

Arlotto's intellectual pedigree is clearly discernible, even though we do not know who his master was. It goes back to Robert Grosseteste by way of Bonaventure and John Pecham. Although his standpoint (that God could not have made the world eternal, because this would imply a contradiction) is more conservative, many of the specific arguments he uses come from the works of these men, especially from Pecham. The context is also clear and shows that bishop Tempier's condemnation in 1277 had done little if anything to inhibit Parisian interest in the question of the eternity of the world. Among the arguments of the opposing camp, many, of course, originated with Aristotle, Avicenna and Averroes. But Aquinas' *De aeternitate mundi* is also much in Arlotto's mind, and many arguments are drawn from it to be rebutted in Arlotto's Response.

In his Response, Arlotto objects to the interpretation of *de nihilo* as *non de aliquo* and insists that it is necessary to say that the world was not made from anything (*immo oportet dicere quod non fit de aliquo*). This, he says, implies an order of duration and not of nature only. He also

⁷ P. Mandonnet, "La carrière scolaire de Gilles de Rome (1276-1291)," *RSPT* 4 (1910), pp. 480-99, on pp. 482-83.

⁸ P. Glorieux, *Répertoire*, p. 118.

⁹ Edited by Richard C. Dales, "Friar Arlotto of Prato on the Eternity of the World," *Collectanea Franciscana* 56 (1986), pp. 37-51.

uses Pecham's argument that "if the world were eternal, the part would be greater than the whole" to prove that the world could not be eternal either in the past or in the future. And, confusing Boethian simple eternity with infinite temporal duration, he claims that if the world were eternal, since all of eternity exists *simul*, that it could not not have been. And this, he says, is proved by Richard of St. Victor, *De trinitate* 2, 9 and Augustine, *De civitate dei* 12, 16, because no creature can be coeternal with the creator. Arlotto nowhere says explicitly that the impossibility of an eternal world can be strictly demonstrated, but his language throughout the *quaestio*, and especially the way he uses Pecham's argument, suggest that he did hold this view.

Although Arlotto uses much common traditional material in his question, he often devises his own arguments and does not merely repeat his predecessors. Arlotto is most impressed by one the main tenets of the conservatives, that the reason the world could not be eternal is that it is made from nothing. Aquinas had gone to considerable pains to show that its having been created from nothing was not incompatible with its lacking a temporal beginning, and he distinguished clearly between priority of time and priority of nature, giving as his example the fact that if the sun were eternal, it would have eternally caused its effect, light; that the illuminated air is dark by nature and by itself would revert to darkness just as a creature by itself is nothing and by itself would revert to nothing; but that there need not have been a time when the air was dark or a creature did not exist.¹⁰ But Arlotto refuses to admit the aptness of the comparison, holding that the light was from the sun and not from nothing, just as the Platonists' footprint in the dust was not from nothing, but from a foot.

However, Arlotto's *quaestio* is important not only for the niche into which it fits among the works of greater men, but for some original and non-typical remarks as well. His attitude towards Aristotle is refreshingly sensible, neither craven nor shrilly hostile. Against the argument from authority that Aristotle had said in *De plantis* that the world has been full of plants from eternity, he gave three answers: 1- Aristotle was only giving his own opinion, which happened to be wrong; 2- Aristotle meant that as long as the world has existed it has been full of plants, but it has not existed from eternity and so it has not been full of plants from eternity; and 3- Aristotle may not have been the author of *De plantis*. Arlotto was quite right; Aristotle did not write *De plantis*; but I do not know of any other thirteenth-century scholar who questioned the attribution. Arlotto also used Ptolemy to good purpose. If, as Ptolemy said,

¹⁰ Aquinas, *De aeternitate mundi*, p. 319. See above, ch. 8, n. 22.

the outermost sphere made a complete revolution every 36,000 years, then the habitable parts of the earth were once uninhabitable and vice versa; but no record of this has come down to us. Therefore, we may reasonably doubt it, and doubt too that the world is eternal in the past.

And, although the argument, derived from Boethius, had frequently been made that if God went from being a non-creator to a creator, He would have undergone a change, which is impossible, Arlotto is the first writer of whom I know who, in a discussion of the eternity of the world, claimed that God could acquire a new real relation to creatures, for no change is involved in acquiring a new real relation. (William of Falegar had remarked that this was extremely difficult to understand.) In this, he anticipates Henry of Harclay (*ob.* 1317), who argued at length for this position:

Videtur michi quod non repugnat Deo habere realem relacionem ad creaturam ... relacio realis nova, si adveniret Deo, nullam mutacionem <nec> nullam novitatem poneret in divina natura ... ergo sibi non repugnat."¹¹

The form of the *quaestio* is characteristic of the period. Before 1270 it had been customary to debate the question whether the world had existed from eternity as a separate topic. Boethius of Dacia had argued three separate questions in his *De aeternitate mundi*: that the world was new, that the world could have been eternal, and that the world was in fact eternal; and he concluded that there are no demonstrative arguments for the first or third positions. Aquinas asserted at the beginning of his treatise that it is heretical to believe that the world is eternal, but that it is a separate question whether the world could have been eternal if God had so willed. His conclusions are the same as Boethius's. Arlotto, writing about fifteen years later, considered that the two questions, whether the world is eternal and whether it could have been, are related and should be debated together as two articles of the same question. However, Arlotto's question is structurally weak, repetitive and jumbled. But it was the prototype of the carefully constructed questions of Henry of Harclay, Thomas of Wylton, and William of Alnwick in the early fourteenth century. The only element of this new form of the question lacking from Arlotto's work is a consideration of what Aristotle had really taught concerning the eternity of the world, a question which was included by all the other scholars we have mentioned, with Boethius of

¹¹ MS Vat. Borgh. lat. 171, fol. 4ra. I am indebted to Mark Henninger, SJ for calling my attention to this aspect of Arlotto's thought and for providing me with the quotation from Harclay.

Dacia and Aquinas (until 1270) concluding that Aristotle had not taught the eternity of the world as a demonstrated truth, and Harclay, Wylton, and Alnwick, despite their many differences, concluding that he had.

The readmission of Giles of Rome to the faculty of theology in 1285 seems to have given heart to the moderates. The General Chapter of the Dominicans, meeting at Paris in 1286, somewhat belatedly bound themselves to promote and defend the doctrine of Aquinas, to the extent that they knew it and were able.¹² But Thomas's position on the possibility of an eternal world was not a part of his teaching which they rushed to defend.

A bolder position than that of Giles was taken by the young secular master Godfrey of Fontaines in his Quodlibetal disputation during the Easter season of the following year. Godfrey is known, from the contents of his still-extant student notebook,¹³ to have been much interested in the problem of the eternity of the world during his student years (early 1270s), since he copied into his notebook the treatises on that subject by Aquinas, Boethius of Dacia, and Siger of Brabant.

Godfrey's Quodlibet, as we have it, is a *reportatio*, and to judge from Godfrey's Response, not all of the initial arguments were recorded. Of those that were, the first two are arguments *ad impossibile*. One is that of Henry of Ghent, that whatever always existed must have been the necessary result of its cause, whereas God created freely and therefore not *ab aeterno*. The other is the first instance I know of an argument which would become a commonplace, that if the world were eternal in the past, God could have created a stone on each of the infinite past days and conserved it in existence, so that there would now be an infinitely large body in act. The single *contra* argument holds that whatever does not imply a contradiction can be done by God, and that the philosophers and the saints agree that an eternal world does not imply a contradiction.

The two works which Godfrey had most clearly in mind in his Response were Aquinas's *De aeternitate mundi*, from which he borrowed many arguments and authorities, and Henry of Ghent's Quodlibet I, qq. 7-8, which he is at pains to refute.

¹² B. M. Reichert, ed., *Acta capitulorum generalium ordinis Praedicatorum* (Rome, 1896), I, 235: "Districtius iniungimus et mandamus, ut fratres omnes et singuli, prout sciunt et possunt, efficacem dent operam ad doctrinam venerabilis magistri Fratris Thome de Aquino recolende memorie promovendam et saltem ut est opinio defendendam." But this injunction was not universally obeyed. See W. J. Courtenay, *Schools and Scholars in Fourteenth-Century England* (Princeton, 1987), p. 182.

¹³ P. Glorieux, "Un recueil scolaire de Godefroid de Fontaines (Paris, Nat. Lat. 16297)," *RTAM* 11 (1931), pp. 37-53.

He asserts that an infinite world does not imply a contradiction and refutes one by one the arguments which hold that it does. First comes an argument, which Wippel suggests may have been aimed at Giles of Rome,¹⁴ in which, denying the distinction of essence and existence, he affirms that God did precede the world in duration, but only potentially and virtually, not really and actually; and he asserts that if one concedes the essential being of creatures from eternity, he must also grant their actual existence.

Then he attacks the position, held by most thirteenth-century theologians, even including Bonaventure, and which had been at the heart of Arlotto's *quaestio*, that it is essential to a creature to have been made from nothing, i.e., not from something, and it should therefore have its being after non-being, because it does not have being from itself, but only non-being. But it is sufficient, claims Godfrey, that it have its being after non-being by nature, and thus a creature having being from eternity might be said to be made from nothing and not from something because it naturally had its non-being, as it were, from itself before it had its being, namely from another. But it does not follow that it would be a being and a non-being at the same time, since a creature would always have non-being *a se* and being *ab alio*, sc. God.¹⁵

He then turns his attention to whether it is necessary that God should precede his effect by temporal duration and, repeating Aquinas's arguments, shows that he need not have; he is prior to creation only by nature. And in concluding this part of his argument, he again turns to Henry of Ghent's assertion that an eternal world would be a necessary world. One could maintain that the world is eternal only because God so willed. He did not in fact will it for this world, but he might have willed another world to be so. Hence its necessity is only *ex suppositione*,

¹⁴ John F. Wippel, *The Metaphysical Thought of Godfrey of Fontaines*, p. 160. On Godfrey's doctrine of the identity of essence and existence and its relation to other thinkers, see the lucid analysis by John F. Wippel, "Godfrey of Fontaines and the Real Distinction between Essence and Existence," *Traditio* 20 (1964), pp. 385-410.

¹⁵ Quodlibet II, q. 3. *Les quatre premiers Quodlibets de Godefroid de Fontaines*, edd. M. de Wulf and A. Pelzer. *Les Philosophes Belges. Texts et Études* 2 (Louvain, 1904), pp. 71-72: "Dato ergo quod creatura nunquam habuerit actu non esse sed semper fuerit, tamen ipsa haberet esse post non esse natura, quod sufficit ad rationem creaturae, et sic creatura habens esse ab aeterno diceretur esse facta ex nihilo vel non de aliquo, quia prius haberet non esse utpote ex se quam esse utpote ex alio. Nec tamen sequitur quod esset ens et non ens, quia non ponitur ipsam sic habere vel habuisse non esse quod aliquando esset totaliter non ens: sic enim cum simul cum hoc poneretur semper fuisse, sequeretur quod aliquando simul esset et non esset; -- sed sic ponitur semper non esse et non fuisse quod natura eius talis est quod esset nihil si sibi relinqueretur."

i.e., that God willed to create it with a temporal beginning. And here Godfrey, following Aquinas, clarifies one of the most troublesome ambiguities in medieval discussions of the eternity of the world, that if the world were eternal it would be equal to God in duration, since "eternity, or the measure or duration of God, would always be *tota simul*, consisting in the highest simplicity, whereas the duration of the world would be successive, even though it lacked a beginning and end of duration. ... And thus also God would exceed the whole duration of the world in perfection and simplicity and would comprehend it in one single fashion."¹⁶

Then, responding to the objection that God could have made one stone on each of the infinite past days and that they would now constitute an actually infinite body, which is impossible, Godfrey, in an argument which is very difficult to follow,¹⁷ claims that the argument has no force. As I understand him, he claims that since stones are *successiva*, they would never have their being all at once, and so there would never be an actual infinity of them at any specified moment.

But he can make stone after stone to infinity and stone before stone to infinity, just as he can also divide a continuum to infinity; but he can nevertheless not bring it about that it is divided in act; and thus with other things. Likewise, it is not necessary to induce instances of stones and pieces of wood, because the same thing which seems to be concluded through instances of this sort are concluded more efficaciously about human souls, if the world were eternal.¹⁸

¹⁶ *Ibid.*, *ed. cit.*, p. 77: "aeternitas sive mensura vel duratio Dei esset tota simul in summa simplicitate consistens, et duratio mundi successiva, licet quia carens principio durationis et termino ... Et sic etiam in perfectione et simplicitate excederet totam durationem mundi, et eam uno modo simplici comprehenderet."

¹⁷ For a thorough discussion of this passage, see Wippel, *The Metaphysical Thought*, p. 164.

¹⁸ Quodlibet II, q. 3, *ed. cit.*, p. 78: "Non valent etiam rationes de infinitis lapidibus et infinitis revolutionibus et huiusmodi, quia licet mundus fuisset ab aeterno, non possent tamen lapides esse infiniti in actu, quia licet infiniti dies praecessissent et quolibet die unum lapidem fecisse potuisset Deus, tamen accipiendo omnes simul non potest esse quod sint facti lapides in omnibus diebus successive, simul posset facere in una hora quantum ad entia permanentia; et constat quod statim facto uno lapide in hac hora, potest facere alium et sic in infinitum. Nec tamen in hac die possunt esse facti lapides infiniti; potest tamen facere in infinitum lapidem post lapidem, et fecisse in infinitum lapidem ante lapidem, sicut etiam potest dividere continuum in infinitum, et secundum quodlibet signum divisivum potest illud dividere, non tamen potest facere quod sit actu divisum et sic de aliis. Item, non oporteret inducere instantias de lignis et lapidibus, quia illud idem quod per huiusmodi instantias concludi videtur, efficacius concluditur de animabus humanis, si mundus fuisset ab aeterno." Because of the difficulty of the argument, I have given the Latin of the entire argument, rather than

But before taking up the question of the actual infinity of human souls, which had so troubled Aquinas, Godfrey conducts an examination of the nature of the infinite and the distinctions which must be made. First, he says that it is inconsistent with the definition of infinity that it should exist *simpliciter* in a completed act; rather, it can exist in something which is in act with respect to something and in potency with respect to something. And since successive beings fulfill this latter condition, they are compatible with the infinite, "because however much is given in the future, there will never be more of time at once (*simul*) than there is now, because part succeeds part. Similarly too, if time had lasted to infinity in the past, there would nevertheless never have been more "before" of time than there is now, and therefore there is no absurdity in its being infinite in the past, any more than in the future."¹⁹

The problem is more difficult with permanent beings, but Godfrey's solution is similar. They are compatible with infinity in a manner analogous to the infinite division of a continuum, "because there always remains something to be taken, and the whole will never be taken. And because that which is is always finite, therefore, in spite of the fact that the parts taken do not succeed each other, there can be an infinity of this kind in permanent beings in the future. And in a similar way, infinity is compatible with permanent beings in the past: since something finite is always taken from such things and there will always remain something to be taken, it can be called a possible infinite."²⁰

However, the infinite is absolutely incompatible with anything which possesses its being completely made (*in facto esse complete*), since in this case the definition of the infinite would be violated, and there would remain nothing to which it was in potency. And permanent beings, all of which are conserved in being, proceeding backwards to infinity, fall into this last category.

just the words translated in the text.

¹⁹ *Ibid.*, p. 78: "... quia quantumcumque detur in futurum, nunquam plus erit simul de tempore quam modo est, quia semper pars parti succedit. Similiter etiam, si tempus durasset in infinitum in parte ante, tamen nunquam fuisset prius plus de tempore quam modo est, et ideo nullum inconueniens ipsum fuisse in infinitum a parte ante, sicut nec a parte post."

²⁰ *Ibid.*, pp. 78-79: "... quia semper remanet aliquid accipiendum, et nunquam poterit totum esse acceptum. Et ideo quia illud quod est semper finitum est, ideo non obstante quod partes acceptae non succedant, potest esse huiusmodi infinitas in permanentibus ex parte post; similiter etiam eo modo a parte ante quo accipitur de talibus semper aliquid finitum et relinquitur semper aliquid accipiendum, potest dici esse possibile infinitum."

This brings him at last to a consideration of the argument that because an eternal world implies an infinite number of departed human souls, the world cannot be eternal. Unlike Aquinas, he denies absolutely the possibility of the actual existence of infinitely many human souls. But this only proves, he says, that in the world as it actually exists, which was made for man's blessedness in soul and body through God's *potentia ordinata*, an infinite past duration is impossible. But it would be possible to posit a world in which departed souls returned to other bodies, and in this case a finite number of souls would suffice for an infinite number of bodies. Indeed, he says, Augustine seemed to dismiss the possibility of the circulation of souls only because of the necessity of rewards and punishments after the death of the body. "And so, if one should posit that souls are ordered only for their natural perfection, it does not appear that a circulation of this sort can be effectively disproved."²¹

He concludes that the arguments concerning infinite stones or souls do not prove in an absolute sense (*simpliciter*) that the world could not have been eternal. But since the world as it actually is, where man's blessedness seems to have been God's main intent, could not have been eternal, it may be argued *probabiliter* that such a world could not be eternal. But this is not to say that a creature could in no way be eternal. "And therefore, by determining neither side as necessarily true, and by reproving neither as false or impossible, but as probable or probably true or false, it can be said that both sides can be upheld as a matter of opinion or belief, and neither is erroneous."²²

Richard of Middleton began his theological studies at Paris in 1276, two years after Arlotto, but unlike most bachelors of the *Sentences* did not produce his commentary on the *Sentences*²³ until 1285-95.²⁴ This resulted in a more mature and competent work than one usually finds in

²¹ *Ibid.*, p. 79: "Unde si poneretur animae solum ordinatae ad perfectionem earum naturalem, non videretur huiusmodi circulatio efficaciter improbari."

²² *Ibid.*, p. 80: "Et ideo neutram partem determinando tanquam verum necessarium, neutram etiam reprobando tanquam falsum impossibile sed tanquam probabile sive probabiliter verum vel falsum, potest dici quod utraque pars per modum opinabilis sive etiam credibilis, non demonstrabilis, potest sustineri, et neutra erronea."

²³ *Clarissimi Theologi Magistri Richardi de Media Villa ... Supra quattuor libros Sententiarum* (4 vols., Brescia, 1591). The material we are studying is contained in Book II, d. 1, artt. 1-4, *ed. cit.* II, 5r-23r. The fundamental modern study is E. Hocedez, *Richard de Middleton. Sa vie, ses oeuvres, sa doctrine* (Louvain/Paris, 1925); see especially pp. 255-56. Steven Baldner, *Four Hitherto Unedited 'Quaestiones'*, pp. 173-84 provides a more thorough study of Richard's doctrine of creation than I have given here; I have profitted greatly from his work.

²⁴ On the date of the *Sentences* commentary, see Hocedez, *Richard de Middleton*, p. 55.

Sentences commentaries, except in the case of outstanding intellects such as Bonaventure or Aquinas. Richard was a much more able theologian than William of La Mare or Arlotto and was closer to the "responsible conservative" tradition stemming from Bonaventure and Pecham than to the extremists, although he was more conservative than either of these great Franciscan masters, despite their clear influence on him.

Ignoring one of the least defensible of the extremist views, that an eternal world would be equal to God in duration, but concentrating on the point that was fundamental to Bonaventure's doctrine on the eternity of the world, he accepts *ex nihilo* as meaning "not from something." This, he says, necessarily implies that what is produced through creation "not from something" is new, or begins to be. And so he declares himself firmly on the side of those who insisted that *creatio ex nihilo* implies a temporal beginning and is inconsistent with a beginningless temporal extension in the past.

He then turns to the traditional distinction between *creatio actio* and *creatio passio*, and here he shows himself indebted to his contemporaries Arlotto of Prato and, to a lesser extent, Godfrey of Fontaines. *Creatio actio*, considered only from the standpoint of God, does not differ from the divine essence, but since it includes the idea of the creature, it bespeaks an action which is primarily identified with God, and secondarily the creature's transcendental relationship to the creator. *Creatio passio* is nothing other than the creature itself with its real relation between creature and creator. Although creation and conservation do not differ really in God but are only distinctions of reason, nevertheless in the creature the distinction between them is real. The creature is related to the creator in "being created" only at the beginning of its existence; henceforth it is related to him by being conserved in existence throughout its duration. This does not imply that creation and conservation are two separate acts of God, but rather that they are two different effects of one single act.

Then, after having argued that the world, including matter, must have been produced by God *ex nihilo*, Richard offers seven arguments that such a creation is inconsistent with an infinite past duration. In the first of these, he takes a more extreme position than that of Bonaventure and argues that since creation takes place in an instant, there must be some instant, i.e., the beginning, in which it takes place; and that this would be true whether creation were from nothing or from pre-existing matter. This is followed by the "infinite departed human souls" argument. Then comes the argument which we have just met in the Quodlibet of Godfrey of Fontaines that if the world were eternal, God could have created a stone on each of the infinite days so that there would now exist a body of actually infinite size, which is impossible.

The fourth and in many ways the most important of his arguments, since it is the only one which tries to prove the impossibility of a past eternity *simpliciter*,²⁵ is one which came by way of Thomas of York and Pecham, based on the premise that all past days were once future. Richard treats it in an original way. If the world were eternal in the past, God would have made an infinite number of days *in accepto esse*, that is, days which had already received their full being. But every past day was once a future day, that is, a day *in accipiendo esse*, whose being was going to be received. Since all the days *in accepto esse* were once future, they are limited by having been actually given their being and are therefore finite, although the number of days *in accipiendo esse* can be infinite, and so a future eternity would be possible.

The fifth is the old argument based on the symmetry of going from being to non-being and going from non-being to being: since the first requires a temporal order, so does the second. The sixth is Henry of Ghent's argument that an eternal world would be a necessary world, but since God created the world freely, he could not have made it eternal in the past. The seventh is a restatement of the traditional argument that there cannot be an infinite mean between two termini, but Richard uses horses as his termini rather than men or days.

Richard's Response in the final question of this section opens with the contention that it was not possible for the world to have been created eternally. His main position is that creation, whether from nothing or from pre-existing matter, is inconsistent with past eternity. In his responses to the individual arguments, he will not even grant, with Augustine and Bonaventure, that the "footprint in the dust" example implies that the eternal footprint was made by an eternal foot, but only that it is conserved by the foot. And since conservation implies making and hence newness, an eternally made foot is a contradiction.²⁶

Another Parisian master of the late thirteenth century who took up the question of the possible eternity of the world was the French Franciscan Peter of Trabes, who, in his commentary on the *Sententiae*, devoted two questions to the subject.²⁷ He was closer to the position of the extreme conservatives than was Richard, and his work betrays considerable ani-

²⁵ Baldner, *op. cit.*, p. 181.

²⁶ *Comm. in Sent.* II, d. 1, art. 3, q. 4, *ed. cit.* II, 18v: "Ad secundum, dicendum quod si pes fuisset in pulvere ab aeterno, bene verum est quod vestigium fuisset ab aeterno: sed non fuisset factum, sed tantum a pede conservatum: et ideo ponere pedem fuisse in pulvere ab aeterno includit contradictionem includendo aliud esse conservatum ab alio, quod non est factum."

²⁷ Athanasius Ledoux, OFM, "Petri de Trabibus, O.F.M., Quaestiones duae: De aeternitate mundi," *Antonianum* 6 (1931), pp. 137-52.

mosity against the philosophers and against Aquinas. In discussing the question *Utrum creatio sit aeterna*, he answers firmly in the negative, for the reason that an eternal creation implies a number of contradictions. The first of these (borrowed from Bonaventure) is that if the world were eternal, there could be no first and therefore no order. But in the second, following the lead of Richard of Middleton, he departs from Bonaventure's doctrine and denies that the newness of the world can be concluded from the fact that it is from nothing and holds that it is the fact that the world was made which necessitates its having a beginning of duration. His third argument, dependent upon Pecham, is that if the world were eternal, God would not have preceded it by duration, and the duration of the world would be equal extensively to the duration of God intensively, and it is impossible that a creature be equated to the creator in any condition of perfection or nobility. The fourth denies that the infinite can exist in act in nature, and if the world were eternal there would be infinitely many departed souls.

Peter draws his arguments for the affirmative side from Avicenna, Aristotle, Averroes, and Aquinas. He is clearly hostile toward "the philosophers," even when they go by the name of "Christian." He concludes his Response with a warning against giving responses from the writings of the philosophers and with an assertion of the main tenet of the extreme conservatives, that "not only probable, but necessary, reasons can be adduced in support of those things which are held on faith,"²⁸ as Richard of St. Victor and Anselm say, and as experience makes clear. "Whence it is not unseemly if certain articles of belief, which are held only on faith by simple folk, might be able to be demonstrated by others more skillful, just as certain common conceptions of the mind known only to wise men, such as that incorporeal beings are not in a place, as Boethius teaches in *De hebdomadibus*, which can scarcely be believed by many people."²⁹

The following question, *Utrum primum principium potuit ab aeterno producere mundum*, makes the same points, except that the Response begins with a rather bitter allusion to Aquinas's *De aeternitate mundi*, whose words it turns against the "philosophical" party: "Some people, considering the teaching of the philosophers, say that God could have created the world from eternity because, in the manner of the haughty

²⁸ *Ed. cit.*, p. 147: "[N]ec est fidei oppositum vel dissonum si ad ea quae fide tenentur rationes non solum probabiles sed necessariae adducantur."

²⁹ *Ed. cit.*, p. 147: "[U]nde non est inconveniens si quaedam credibilia, quae solum fide a simplicioribus tenentur, ab aliis peritioribus valeant demonstrari, sicut sunt quaedam communes animi conceptiones solis sapientibus notae, ut incorporalia in loco non esse, sicut dicit Boethius in *Hebdomadibus*, quae etiam a pluribus vix credi possunt."

philosophers, thinking that they have completely demonstrated this by the arguments given above for the affirmative side, deride those who assert the contrary according to the simplicity of faith, *quasi ipsi soli sint homines et cum eis solum sapientia debeat commorari*.³⁰

In about 1290, shortly before his death, Roger Bacon published his *De viciis contractis in studio theologie*, which appeared like a voice from the past. Bacon's reading was quite different from that of the typical scholastic, and he had been removed from the mainstream of intellectual developments for many years. In phrases reminiscent of the 1240s, he discussed the eternity of the world, contrasted created and uncreated eternity, pronounced on Aristotle's true teaching on the subject, and in so doing reasserted William of Conches's dictum that Aristotle only meant that time and the world began together; and he repeated in summary form Pecham's argument that if the world were eternal, the part would be greater than the whole. Defending the opinions of the philosophers, and especially Aristotle, on the eternity of the world, he wrote:

[The philosophers] make clear the creation of the world and its production from nothing, not holding that it was eternal and without a beginning, as is clear through Avicenna, but that it had a beginning, as is clear through Aristotle, since he posits a creator and created things, as has been said, and since he says that there could not be infinite past motions, since the infinite cannot be traversed; but all past motion has been traversed and all past time is finite. And if there were not a first motion, there would not be any subsequent motion, as is clear from the end of *De generatione* and book 5 of the *Physics* and the beginning of the *Metaphysics*; although the world is eternal if one understands "created eternity" for "eternity," as in the second proposition of *De causis*, where he says that the first cause is above eternity and before it, and [in this sense] he teaches that the world is eternal. And understanding "eternity" as the whole extension of time from the beginning of the motion of the sky, which could be made perpetual by the divine will, one can posit that the world is eternal because there was not a time in which there was not motion, as he himself argues in book 8 of the *Physics*, against those who posit that an infinite

³⁰ *Ed. cit.*, p. 149: "Quidam intentionem philosophorum intuentes, dicunt Deum mundum ab aeterno creare potuisse et hoc propter rationes in opposito ad partem affirmativam prius motas quibus se hoc valde demonstrasse existimantes more superbiorum philosophorum deridunt secundum fidei simplicitatem contrarium asserentes, quasi ipsi soli sunt homines et cum eis solum sapientia debeat commorari." The last phrase is a paraphrase of Aquinas's *De aeternitate mundi*, ("Ergo illi qui tam subtiliter eam percipiunt soli sunt homines, et cum eis oritur sapientia." *Opera omnia*, ed. Parma 16, 320a), here turned against Aquinas and the philosophers.

chaos was at rest before the formation of the world in infinite time.³¹

This may seem like quite an arbitrary and idiosyncratic reading of Aristotle, but Bacon justifies it because "the obscurity of the text of Aristotle and the difficulty of his opinions and the bad translation conceal from many his true teaching on this point."³²

Ever since the earliest thirteenth-century questions on eternity, in the works of William of Durham, Anonymous I of Douai 434, Philip the Chancellor, and Alexander of Hales, one of the central problems had been to relate the temporal and atemporal with respect to duration. Indeed this had been the principal concern of Eustace of Arras's series of seven questions on eternity.³³ Near the end of the century, the Dominican, Theodoric of Freiberg, undertook a thorough, comprehensive, and original treatment of the same problem in his treatise *De mensuris durationis*.³⁴ The most valuable aspect of his work is his attempt to understand the term "duration" in a sense other than "persistence through time."

Theodoric had read widely on the subject and knew the literature of the twelfth century as well as that of the thirteenth. He attempts a comprehensive presentation of the tradition, coupled with a measure of originality, and tries to make coherent the often incoherent strands of thought of many centuries. He continued the approach of Grosseteste and Eustace in emphasizing the concept of measure. First he distinguishes two kinds of measure, but in a somewhat different fashion than had

³¹ Roger Bacon, *De viciis contractis in studio theologie*, ed. Robert Steele (London, 1909), p. 10: "Deinde mundi creacionem et produccionem ex nichilo veraciter manifestant, non ponentes mundum fuisse ab eterno sine principio, ut patet plane per Avicennam, set initium habuisse, et per Aristotilem, cum ponat Creatorem et creata, ut dictum est. Et cum dicat non potuisse motus infinitos non prefuisse, quoniam ut demonstrat, non contingit infinita pertransire, set omnes motus preteriti sunt pertransiti, et omne tempus preteritum est finitum. Et si non esset primus motus, non fuisset aliquis posteriorum, ut ex fine *De generacione*, et quinti *Phisicorum*, et principio *Methaphisice*, manifestum est. Quamvis mundum esse eternum, sumpto eterno pro eternitate creata, sicut accipit in secunda proposicione *De causis*, ubi dicit quod causa prima est super eternitatem et ante eam, velit mundum esse eternum; et sumpto iterum eterno pro tota extensione temporis a principio motus celi, qui potest perpetuari secundum Dei voluntatem, contingit ponere mundum eternum, quare non fuit tempus in quo non fuerit motus, ut ipse arguit 8° *Phisicorum* contra eos qui posuerunt chaos infinitum quiescere ante mundi formacionem in tempore infinito."

³² *Ibid.*, p. 11.

³³ See above, ch. 7.

³⁴ This work was first edited by Friedrich Stegmüller, "Magister Theodoricus, *De mensuris durationis*," *Archives d'histoire doctrinale et littéraire du moyen âge* 13 (1940-42), pp. 193-221. It has been re-edited by Rudolf Rehn in *Dietrich von Freiberg. Opera omnia* (4 vols., Hamburg, 1981-85), III, pp. 203-240.

Eustace. In the first kind, he says, a thing is measured by something intrinsic to it, such as a day being measured by hours or all number by unity. But in the second kind, the kind he wishes to investigate, it is measured by something extrinsic to it, as motion is measured by time or a located thing by place.

Then Theodoric rejects the traditional criteria of the various measures, that is, by comparing them to each other as they have or lack termini, and elects instead to concentrate on the property and mode of the different substances involved. Taking his initial stance in eternity rather than in time, he developed the concept of presentiality contained in Boethius's definition of eternity in *De consolazione philosophiae* 5, pr. 6 to relate the various kinds of measure to each other; but he went considerably beyond what Boethius had explicitly said. Boethius had said that God, because of his mode of being, *knows* all past and future as present. Theodoric extended this to hold that if God exists completely all at once, and if all past and future is present to him, then conversely his mode of existence makes it possible also for him *to be* present to them, "not only according to knowledge, but also according to real coexistence."³⁵ Each successive lower degree of measure possesses also a lesser degree of presentiality. He deals with the problem of ambiguity in the intermediate area between the eternal and the temporal by making a number of new categories, each clearly marked off from the others.

The highest measure he calls eternity or supereternity, and assigns it to the divine substance. It incomprehensibly collects within itself the perfections of all kinds of things by its infinite immensity. Its substance is removed from all variation, it is not enclosed between the initial and final boundaries of any duration, and the presentiality of its existence embraces every duration of each and every being. "It exists only *presentialiter*; whence it is present to all beings, and all things are present to it, not only according to knowledge, but also according to real coexistence."³⁶

The next lower stage is one about which Theodoric seems to have some misgivings, since he always attributes it to "the philosophers." The philosophers say that this stage is occupied by the Intelligences, which are measured by eternity, and like the supereternal they have complete

³⁵ *De mensuris durationis* 1, 10, ed. Rehn, p. 218: "Praesentialitas existentiae ipsius omnem cuiuscumque entis durationem circumcludit, et solum praesentialiter existit, non concernendo nec praeteritum nec futurum. Unde ipse omnibus entibus praesens est, et omnia sibi praesentia, non solum secundum cognitionem, sed etiam secundum realem coexistentiam." The Dominican Thomas of Sutton had debated the question: "Utrum Deo ab aeterno fuerint omnia praesentia secundum esse eorum actuale," in 1286 in his third *Quodlibet*, q. 5. See Glorieux, *La Littérature Quodlibétique*, I, 294.

³⁶ *Loc. cit.*

presentiality. They contain within themselves the perfections of all things, and their substance is thus invariable and lacking a beginning or end of duration.

The third degree of measure, *aevum*, is assigned to spiritual substances (angels and the rational soul). Each spiritual substance is not only a being *simpliciter*, but *this* being, that is, an individual. An angel, through its essence, does not contain within itself the universe of beings, as God and the Intelligences (according to the philosophers) do, and so an angel falls incomparably short of the essential perfection not only of God, but also of the Intelligences. In each individual spiritual substance is found variability according to accidental dispositions, but these substances are not subject to motion properly speaking, and consequently not of position (*situ*) either. They are not extended into the past by an infinite duration, but they have a beginning with the universe of creatures. However, they may lack an end of duration, since they are included within the order of this universe. They do not have duration *ut simpliciter*, that is, embracing and including all duration (i.e., all beings are not present to them according to coexistence, as is the case with the eternal), but they only have duration *ut hanc*, that is according to a certain presentiality of their existence with respect to the past and future, by which some beings are sometimes presently coexisting with them, sometimes past, and sometimes future. And their knowledge is not only of present things as present, but it also extends to those things which are past and those things which are future, not only insofar as they are past or future *simpliciter* in the causes of things, but also those things which are past or future to its present existence. This present existence Theodoric calls *existencia ut nunc*.

The fourth level of durational measure, eviternity, is occupied by the heavenly bodies. Because they are corporeal, they are lower than spiritual substances. They are also variable, and they move according to place. They have a beginning of existence, although they may not have an end of duration. They are incorruptible, but in a far lower degree than spiritual substances (he does not explain how there can be degrees of incorruptibility). Their duration is extended from the past into the present and from the present into the future, not through the substantial transmutation of the substance of the heavenly body itself, but according to the way in which its presential existence is related to the past and the future. Its presential existence is more determined both *in re* and in reason regarding existence *ut nunc* than in spiritual substances because, as a mobile thing, it passes in its motion through various changed beings (*mutata esse*).

The fifth level is occupied by generable and corruptible beings, which are properly in time because they have a boundary of their duration in

both directions, that is they are exceeded by and included in time. They vary not only in accidental dispositions, but also substantially, and in their substance they are subject to generation and corruption. They have a beginning and end of duration. Their presentiality, or presential existence, is less than any of the preceding. The substance of such things is not always present, nor is it in itself always related to past and future. For before a substance of this kind had being, nothing was either past, present, or future to it; and the same is true after it has ceased to be. Its presential existence is only according to the manner of a successive being, whose parts do not coexist together, but they succeed each other successively.

By using absolute presentiality rather than the passage of time as his starting point, Theodoric avoids the apparent impossibility of the coexistence of "nows" which are different in substance. In his view, time falls short of God's mode of existence to a greater degree than any other kind of measure, and the question of duration is transmuted into the question of presentiality. A way had been found to relate the eternal and the temporal, and a traditional unanswerable question no longer had to be asked.

The problem of duration and of relating the eternal to the temporal was of considerable importance in thirteenth-century thought, especially in discussions of the eternity of the world. It was sometimes squarely faced, but it was never solved. The various qualities of simplicity, eternity, invariability, and immensity or interminability are not easily compatible, and yet they were all attributed to God. If the question of the eternity of the world had been restricted to the beginninglessness of the world (or its possibility), the problem would have been greatly simplified. But the attempt to identify each of these qualities with the divine substance and therefore with each other created dialectical chaos. The equivocal use of the word "duration" contributed to the confusion, since it is difficult to see how an atemporal being can possess duration in any sense which is meaningful to us. Both Eustace and Theodoric helped to clarify the situation, Eustace by saying that eternity excels and embraces all other measures (but without giving any particulars on the way this is done), Theodoric by trying to define "duration" in a new way. Although I admire his attempt, I am not sure that his use of "presentiality" is intelligible; he seems to admit as much when he says that the divine substance "incomprehensibly collects within itself the perfections of all kinds of things by its infinite immensity."³⁷ And Pecham had helped when he

³⁷ "... in se colligit omnium generum entium perfectiones, et sic incomprehensibiliter intra se ipsum sua immensitate infinite intenditur." *Ed. cit.*, p. 197.

contrasted the eternal instant, simple and without any termini, with the temporal instant, characterized by its smallness and constriction. I do not know that any satisfactory solution has been achieved to this day. One way out of the dilemma is to abandon the insistence that God is atemporal, and this has been done.³⁸

Tempier's condemnation certainly did not put and end to interest in the question of the eternity of the world, and we find a succession of works on the subject from 1278 to the end of the century. The Franciscan Order, with the exception of its troublesome member Roger Bacon, held firm to the conservative position in works by William of La Mare, Arlotto of Prato, and Richard of Middleton, but its members were far from being in agreement on all matters involved in the question. The moderates, among whom Dominicans were conspicuously absent, after an initial period of hesitation, reasserted themselves, first with the readmission of the Augustinian Giles of Rome to the Parisian theological faculty, an event during which Giles showed little of the humility which had been expected of him, and by the Quodlibet II of the secular master Godfrey of Fontaines, which, while it made little advance over Aquinas's work and even retreated on the matter of whether God could make anything infinite in act, nevertheless reasserted many of the philosophical points at issue and examined them intelligently and originally. At the end of the century, the Dominican Theodoric of Freiberg revived a subject which had earlier been much explored but which had fallen from the attention of most thinkers.

By the last years of the thirteenth century, the mood of the Parisian theologians had changed markedly, as is evidenced by the Quodlibet XII of Godfrey of Fontaines, dating from about 1295, on "Whether the bishop of Paris sinned in not correcting certain articles published by his predecessor."³⁹ Although Godfrey ends up by denying that the bishop had sinned, the arguments given in the course of the question show a deep dissatisfaction with the effect that the condemnation of 1277 had had both on students and on the pursuit of truth by the masters. Godfrey

³⁸ The most recent discussions about the temporality of God are found among the school of Process Theologians. See Charles Hartshorne, *Omnipotence and Other Theological Mistakes* (Albany, 1985) and *Creativity in American Philosophy* (Albany, 1984). A major source of most of these process theories is Alfred North Whitehead, *Process and Reality* (New York, 1929). I am indebted to Dr. Joseph Styles for my knowledge of this literature. The most successful modern attempt of which I know to deal with the problem is Eleonore Stump and Norman Kretzmann, "Eternity," *Journal of Philosophy* 78 (1981), pp. 429-58, but it is convincingly dissented from by Richard Sorabji, *Time, Creation, & the Continuum*, p. 113.

³⁹ See M.-H. Laurent, "Godefroy de Fontaines et la Condamnation de 1277," *Revue Thomiste* 35 (1930), pp. 273-281.

concludes that although the bishop cannot be condemned for not correcting the condemnations, since he is not skilled in theology, nevertheless the condemnations should be revoked, since they are a cause of misunderstanding, scandal, and schism among the students, and they make a master's job impossible. He concedes that at the time they were issued there was some excuse for them, since many masters, particularly artists, had gone beyond the bounds of reason. But the proper means of discovering truth is by rational debate, not by appeal to the condemnations. He also points out that the condemnations have only local force and are not binding outside the diocese of Paris, although this is not always clearly understood.

During the last six years of the century, interest in the eternity of the world and related topics began to quicken, and the question began to be discussed by masters of diverse affiliations. In 1294 in his first Quodlibet, the Carmelite Gerard of Bologna disputed the question *Utrum stante opinione Aristotilis de eternitate mundi, deus facere possit aliquid eiusdem rationis*,⁴⁰ and in his third Quodlibet in 1296 *Utrum deus potuit creare sive producere mundum ab eterno in dispositione in qua nunc est*.⁴¹ The Augustinian James of Viterbo, at about the same time (1295-96) disputed several related questions in his third Quodlibet, *Utrum in deo sit prius et posterius* and *Utrum creatio actio et creatio passio sint idem*.⁴² And in the same year (1296), the secular Peter of Auvergne, in his first Quodlibet, addressed the question itself, *Utrum deus potuit facere mundum ab eterno*.⁴³ Although Peter's question is quite short, it is important in showing that the matter was by now of general interest and in taking up and expanding the main point of Aquinas's *De aeternitate mundi*, that God can make anything that is able to be made, and that there is nothing in the concept of an eternally created world which implies a contradiction. The main purported contradictions he investigates are whether it is necessary that a creature must have its non-being prior by duration to its being and whether the actual existence of infinitely many departed souls is an impossibility. The latter of these is the less interesting, since Peter simply accepts Algazel's claim that in things which are not essentially ordered, nothing prevents their being infinite in number. But his consideration of the former shows considerable originality.

⁴⁰ Paris, Bibl. nat. MS lat. 17485. See Glorieux, *La Littérature Quodlibétique*, I, pp. 128-29.

⁴¹ *Loc. cit.* See Glorieux, *op. cit.*, I, p. 130.

⁴² See Glorieux, *op. cit.*, I, p. 215.

⁴³ I have used Paris, Bibl. nat. MS lat. 14562 and Florence, Bibl. naz. MS II II 182. Omar Argerami is presently preparing an edition of this question. For a list of other MSS containing it, see Glorieux, *op. cit.*, I, p. 258.

He begins by defining the conditions of possibility and impossibility and then shows by strict reasoning that a beginningless but created world is possible. First he distinguished two meanings of eternity: that which is completely without a beginning either of being or of duration (i.e., only God) and that which has no beginning of duration, although it has a principle of being. God can make whatever can be made (i.e., which does not imply a contradiction). A contradiction would arise if a creature were such that its non-being must necessarily precede its being by duration. Peter then shows that even in material production, such as the sun's light and fire's heat, the cause and effect are simultaneous. In fact, no effect proceeding suddenly from its cause by necessity is posterior to its cause in duration. The world proceeds from its cause not through motion and in time, but in eternity and, as a consequence, suddenly. Therefore it is not necessary that the world should be subsequent in duration to the being of God. And it does not matter that God's action is voluntary rather than necessary, for this objection would hold only if God acted through deliberation. If the world's being necessarily followed its non-being by duration, it would be necessary that its being were posterior in duration to the being of God and that it would be repugnant to it to exist along with him. Therefore it is not necessary that *secundum se* the being of the world should be posterior in duration to its non-being. Therefore it is impossible that the being of the world would not follow its being by duration.

Furthermore, in the world being and non-being are conjoined, for the world does not exist from itself but has its being from another. In such a thing, its being cannot be posterior to its non-being by duration, or it would be impossible that the two exist at once. Therefore it is not necessary that the being of the world would be posterior to its non-being by duration, because it is not repugnant to the world to have existed from eternity. Therefore, if God can make whatever *secundum se* is able to be made, God can make the world exist from eternity in such a way that the world from eternity had its being from him, and from eternity had its non-being from itself.

Peter's question, short though it is, sets the stage for the final and most productive period of medieval discussions of the eternity of the world, to which we now turn.

CHAPTER ELEVEN

THE EARLY FOURTEENTH CENTURY: OXFORD

English scholars had been conspicuous in the debates over the eternity of the world from the days of William of Durham and Alexander of Hales, although with the exceptions of Robert Grosseteste and the anonymous author of Vat. Ottobon. lat. 185 (see above, ch. 5), their works had all been products of the Parisian milieu. But in the early fourteenth century, British scholars and Oxford University achieved a dominant position. The English would continue to play an important role at Paris, but Oxford would be the scene of some of the most able and innovative discussions of the entire tradition. Although all of these masters, with the exception of Ockham, also studied and taught at Paris, they exhibit certain characteristics which set them off from their Parisian contemporaries. First is the more nearly philosophical nature of their questions, depending heavily on purely logical and mathematical arguments. Second is the extensive direct use made of the works of Grosseteste. And third is a measure of good temper, sometimes even geniality. And they all understand "eternity" unambiguously as infinite temporal extension, leaving aside the consideration of eternity as being simple and atemporal.

William of Nottingham, thirty-ninth lector to the Oxford Franciscans (1312-14) had received his degree in theology from Oxford and from 1316 to 1330 served as English provincial minister of the Order. His commentary on the *Sententiae* devotes a considerable amount of space to discussing *Utrum possibile sit vel unquam fuit quod aliquid aliud a Deo habuisset ab aeterno aliquam entitatem realem positivam extra intellectum divinum*.¹ It exhibits a mastery of the literature on the subject, both of Oxford and Paris, up to about the year 1310, and it provides evidence of other disputations on the possible eternity of the world -- by Richard Conington, his immediate predecessor as provincial minister, the Dominican Thomas of Sutton, and John of Berwick, who had been lector at the Oxford Franciscan convent in 1290-91 -- which have not come down to us, or which I have been unable to locate. This indicates the existence of an already lively interest in the question at Oxford prior to the disputa-

¹ Edited by Michael Schmaus, "Guillelmi de Nottingham O.F.M. doctrina de aeternitate mundi," *Antonianum* 7 (1932), pp. 139-66.

tion involving Henry of Harclay, Thomas of Wylton, and William of Alnwick in 1316.

William's question is a serious and competent investigation of the problem. Although it is not on the same level as the earlier question of William of Ware, which we shall examine in the next chapter, it is nevertheless of considerable merit. It proceeds by discussing first what the difference is between being of essence (*esse essentiae*) and being of existence (*esse existentiae*); then it shows that it is impossible that anything should have being of essence in such a way that it might bespeak something positive outside some intellect unless it should also have being of existence; and then it offers a proof that it is repugnant to anything other than God to have existed from eternity or to be coeval with God himself. Although William explicitly confesses his debt to Grosseteste (commentary on *De divinis nominibus*), Bonaventure, William of La Mare, Henry of Ghent, and Richard of Middleton, as well as a number of contemporary and near contemporary masters, and in fact borrows from Pecham as well, his is a competent attempt to solve the problem in an original fashion.

The heart of William's solution is given at the beginning of the third article: There are four reasons why it is impossible that anything other than God has existed in effect and had its being of existence from eternity. The first is that such a thing would be from a producer or creator according to its entire being, presupposing absolutely nothing. The second is that it would only be from it effectively, not *originaliter*, such as the Son from the Father, a ray from the sun, or light from fire. The third is that its being would not be given to it in the creating substance, but in another. And from these the fourth follows necessarily, that it be made from nothing, or from non-being, absolutely (*simpliciter*). Therefore, either *materialiter* or *originaliter* or *ordinabiliter*. Not in the first two ways, because "nothing," or non-being, simply speaking is the matter or origin of no thing. Therefore, only *ordinabiliter*, that is, after nothing or after non-being. But every such thing has new being acquired to itself from another from non-being. But this is repugnant to that which has its being without a beginning, or from eternity. Therefore, to posit that a creature exists from eternity is to imply a contradiction.²

Having stated his argument, William then replies to all the objections which could be brought against it, treating in the process nearly all of the standard arguments of the tradition. He is moderate on the question of whether the non-eternity of the world is capable of demonstration, following closely the view of Matthew of Aquasparta, that while it is not

² Paraphrased from *ed. cit.*, pp. 152-53.

capable of demonstration *propter quid*, which has a definition as a middle term and is the strongest type of demonstration, it might be demonstrated *quia* and by reduction to absurdity, having an effect as the middle term. "Whence, given that 'something could not have existed from eternity' could not be demonstrated in the first way, nevertheless it can be in the second way, as, I believe, has just been done."³ But he is firm in denying the position falsely attributed to Aquinas by William of La Mare, that it would detract from the faith if some of its articles should be proved or demonstrated.

William seems to have known the Parisian questions of Harvey Nedelec, which we shall discuss in the next chapter, although Harvey is not mentioned by name either in the text or in the marginalia. However, one argument which William considers carefully in his third article is the one which is the essence of Harvey's case: that "prior by nature" can be understood either positively or privatively and negatively, and privatively not because that thing was in it or existed before, but because it would be in it or would exist unless it were impeded by something; and thus it would have been from non-being if something other than God had existed from eternity. Then, replying to the objection that this would seem to require that such a thing be produced by necessity, he says: "The only reply I see to this is that there was no preceding potency by which it might have been impeded; nevertheless there would have been a concomitant potency, at least on the part of God, the producer. For just as he produced from eternity, so he was able not to have produced, and as regards the same thing."⁴ William rejects this argument on the basis of Henry of Ghent's denial of the similarity of such an eternal production to predestination, and then goes on to give the "infinite souls" argument, denying that the actual infinite can exist in creatures even accidentally ordered, and he repeats most of Bonaventure's infinity arguments.

In the year 1316, William of Alnwick, soon to go on to greater things, was the forty-second Franciscan regent in theology at Oxford; the secular theologian and somewhat eccentric thinker Henry of Harclay, in the next-to-last year of his life, was chancellor of Oxford; and the brilliant Thomas of Wylton was a secular regent master in theology there. During that year a disputation took place, including all three of these men and,

³ "Unde dato, quod aliquid non possit fuisse ab aeterno, non posset demonstrari primo modo, potest tamen secundo modo, sicut iam factum est, ut credo." *Ed. cit.*, p. 160.

⁴ "Ad istud non video aliam responsionem nisi istam, quod scilicet nulla fuit potentia praecedens, qua potuisset impediri, fuisset tamen potentia concomitans et hoc saltem ex parte Dei producentis. Nam sicut ab aeterno produxit, ita et pro eodem potuit non produxisse." *Ed. cit.*, p. 154.

I believe, attended by William of Ockham, which was of enormous significance for the question of the eternity of the world.

Henry of Harclay, a secular master and Chancellor of Oxford University from 1312 until his death in 1317, during his career disputed two highly original questions on whether God could have created an eternal world. Henry was much occupied with the problem of the possible eternity of the world and with the properties of infinite sets. He composed one *quaestio* on the possible future eternity of the world. This work has been studied by John Murdoch,⁵ who is preparing an edition of it. It is ultimately unsatisfactory partly because Henry did not distinguish sufficiently between mathematical and physical entities and because his analysis of a continuum was inadequate. He avoided both these pitfalls in the *quaestio* we are concerned with, *Utrum mundus potuit fuisse ab eterno*.⁶

Henry begins with a statement of the question and a token argument and response. He then says that there are three opinions about it: first that the world has existed from eternity and could not not have existed; second that it did not exist from eternity but could have; and third that it could not have existed from eternity and consequently did not. Then, taking up the first opinion, he says that there is some doubt about what Aristotle's teaching was, and approximately the first half of the question investigates the doctrine of Plato and Aristotle on the eternity of the world. This section is heavily dependent on Grosseteste's *Hexaëmeron*, which it pillages extensively for both arguments and authorities, but it also discusses material found in Maimonides' *Guide of the Perplexed* and Aquinas's *Summa theologiae* and *De aeternitate mundi*. The interest of this section is largely in the narrative shape it gives to the history of the question, tracing its origins to Grosseteste and seeing Maimonides as the source of the views that Aristotle did not teach the world's eternity as a demonstrated truth but only as a probable doctrine, and that the question cannot be decided by demonstrative arguments for either side. Otherwise it is largely a rehash of arguments and authorities found in Grosseteste's *Hexaëmeron*. Henry concludes that Aristotle did teach the eternity of the world, but that Plato contradicted himself -- the same position that Grosseteste had taken. He then offers ten stock arguments against the eternity of the world. But before going on to reply to these

⁵ John E. Murdoch, "Henry of Harclay and the Infinite," in *Studi sul XIV secolo in memoria de Anneliese Maier*, edd. A. Maierù and A. Paravicini-Bagliani (Rome, 1981), pp. 219-61. I am indebted to Prof. Murdoch for making a copy of his article available to me prior to its publication.

⁶ Edited by Richard C. Dales, "Henricus de Harclay. Quaestio 'Utrum mundus potuit fuisse ab aeterno,'" *AHDLMA* 51 (1983), 267-99.

arguments, he asserts that the second (of the three originally stated positions) is the one he holds at present: that the world and motion could have existed from eternity, because none of the arguments for the opposite position is demonstrative, and we should attribute to divine omnipotence anything which does not (or is not known to) involve a contradiction.

Near the end of his lengthy refutation of the assertion that infinite time entails infinitely many souls which would possess infinite power, Henry develops a mathematical argument which was suggested by a remark in Augustine's *De civitate Dei* 12, 19. Henry's argument is:

Here is another way to respond to the contention that an actual infinity is not inconsistent with a multitude insofar as it is a multitude. Thus I believe that now there are infinitely many numbers known to God, and consequently they are numbers. For, so I believe, number does not depend on a continuum or on the thing numbered; but the number by which we number is a certain measure existing in the mind, and when we number by it we attain knowledge of the numbered thing; ... and there are now infinitely many such numbers in the divine mind. ... And therefore I say that infinity of multitude is not repugnant to souls, although infinity of power would be. And I say that if there were infinitely many souls, some or all of them would not for this reason be infinite in strength or power, because all the souls do not make one infinite power. We must say, therefore, that these infinitely many souls do not constitute any species of number, but a multitude of infinitely many numbers. Therefore in that multitude would be every species of number, and consequently it would not be any one number, for it is a contradiction that one number should contain all number. And this is what Augustine says,⁷ that there is not a number of infinite numbers, for then it would contain itself, which is impossible.⁸

⁷ *De civitate Dei* 12, 19.

⁸ "Aliter potest responderi, quod non repugnat multitudini in quantum multitudo est infinitas in actu, sicut dicetur infinita. Unde credo quod modo sint infiniti numeri apud deum noti, et per consequens sunt numeri; nam, ut credo, numerus non dependet ex continuo, nec ex re numerata, sed numerus quo numeramus est quedam mensura apud mentem existens, per quam numerans devenit in cognitionem rei numerate, ... et tales sunt modo infiniti in mente divina. ... Et ideo dico quod animabus non repugnat infinitas multitudinis, licet repugnet eis infinitas virtutis. Et ego dico quod si essent infinite anime, non propter hoc esset aliqua vel omnes infinite in vigore vel virtute, quia omnes anime non faciunt unam virtutem infinitam. Dicendum igitur quod ille infinite anime non constituerunt aliquam speciem numeri, sed multitudinem infinitorum numerorum. Unde in illa multitudine esset omnis species numeri, et per consequens non esset aliquis numerus unus, contradicchio enim est quod unus numerus contineat

And so, by invoking a basic property of sets, Henry disposed of the infinite power argument.

He then proceeds to attack the basic assumption of Bonaventure and his followers and argues: that the infinite can be exceeded in the direction in which it is infinite; that all infinities are not equal but can be added to and subtracted from; that there is nothing about the nature of a straight line which is inconsistent with its being infinite, and that time has only the dimension of linearity; and finally that there can be order in the infinite and that an infinite series can be actually traversed.

To Bonaventure's assertion that the infinite cannot be exceeded in the direction in which it is infinite, Henry simply says that it can, and the contradiction which Bonaventure thought it implied was no contradiction at all. He gives the following example. Let us suppose that my father and the sun preceded me in duration, and his father and the sun preceded him, and so on backwards to infinity. It will always be true that the sun (the ultimate cause of all generation on earth) preceded any given generation of a man, and it behaves toward an infinite number of generated and generating men just as it does toward two. If it precedes each act of generation separately, it also precedes them collectively, and so an infinite duration (i.e., of generated and generating men) can be exceeded (i.e., by that of the sun) in the direction in which it was infinite.

He then goes on to argue that all infinities are not equal but can be added to and subtracted from without affecting their infinity. The position that the infinite cannot be added to, he says, proceeds from a false imagination. The argument which tries to prove that on the assumption of infinite time the part is greater than the whole is invalid because the infinite only has a part with respect to a certain designated portion of it, not with respect to its totality. On the same assumption, I can prove that two equals one hundred, and so we must abandon the position that all infinities are equal. It follows therefore that if to one revolution of the sun are added twelve revolutions of the moon for an infinite time, there would now be a greater number of revolutions of the moon than of the sun, and similarly that there are potentially more numbers exceeding two than exceeding 100. This argument holds even if one proceeds to infinity. This is confirmed, because the principle: "parallel lines do not intersect" is not more necessary than "if you take equals from equals," etc.; but the principle holds even if the lines were actually infinite.⁹

omnem numerum. Et hoc est quod dicit Augustinus, quod infinitorum numerorum non est numerus, tunc enim contineret se, quod est impossibile." *Ed. cit.*, p. 244.

⁹ Paraphrased from *ed. cit.*, pp. 245-46.

Furthermore, Henry claims, there can be proportionality, though not a strict proportion, between infinities, "as brother Thomas [i.e., Aquinas] concedes."¹⁰

Just as eight is in double proportion to four, thus infinite eights are in double proportion to infinite fours. Therefore, one infinite is greater than another. It is certain that I can subtract some quantity from the infinite, or understand it to be subtracted. Make that subtraction not at one terminus or the other, since it does not have termini, but anywhere you wish. After the subtraction, what remains will still be infinite, for the infinite is not made finite by the subtraction of a finite quantity. Now I ask whether this infinite quantity is still equal to the one it was equal to before the subtraction was made, or less than it. If it is less, I win the point; and to say that it is still equal is not intelligible.¹¹

The infinite then is not inconsistent with inequality. To those who object that Euclid's principles hold for finite quantities but not for infinite, Henry replies that equality is a property of quantity not by reason of this or that quantity or this or that multiple, but by reason of equal multiples in common and equal quantities in common. Therefore it is a property of everything in which the law of equal multiples holds. I concede, he says, that there would be more revolutions of the moon than of the sun, and similarly, if the world had existed from eternity, that the duration of the sun would be greater than the total duration of all men, and that one infinite can be greater than another infinite of the same kind of quantity, such as one line than another line or one multitude than another multitude if both are infinite. And it seems to me that there is no doubt that in any infinite quantity, we can speak of part and whole only with respect to certain designated portions of it, for the reasons given above. For if two parallel lines, infinite in one direction, were to be terminated at different points at the other end, then one whole infinite line would be shorter than the other. Furthermore, let us take one line eight feet long

¹⁰ Cf. Aquinas *Quaestiones disputate De veritate*, q. 2, art. 3, resp. ad argumentum quartum.

¹¹ "Sicut igitur 8 sunt in dupla proporcione ad 4, sic infiniti octonarii sunt in dupla proporcione ad infinitos quaternarios. Igitur unum infinitum est maius alio. Preterea, ipse concedit quod unum infinitum est equale alteri. Possum autem de infinito aliquid subtrahere certum est, vel intelligere aliquid esse subtractum. Aliter consisteret in indivisibili. Fiat igitur illa subtraccio non in uno termino nec in alio, quia terminum non habet, sed ubicumque volueris, certum est quod residuum post subtractionem adhuc est infinitum, nam infinitum non fit finitum per subtractionem finiti. Quero igitur tunc utrum sit equale alteri infinito cui prius fuit equale, aut minus illo. Si minus, habetur propositum. Si equale, hoc non est intelligibile." *Ed. cit.*, p. 247.

and another four feet long, and divide them into equal parts. There will be eight in the one and four in the other. Then divide those parts in half, and there will be sixteen in the one and eight in the other. If you continue to infinity there will always be twice as many parts of the same size in the eight-foot line as in the four-foot line. Therefore, one infinite exceeds another.¹²

Having made his main point, that all infinities are not equal, Henry argues by analogy from straight lines to time. He begins by treating continuous quantities in general, namely lines, surfaces, and solids, and then distinguishing lines into straight and curved. He concedes that a curved line cannot be infinite, and that if a line constituted the terminus of a surface or solid, or if it were extended in a natural body, it could not be infinite. But, he insists, infinity is not inconsistent with a straight line insofar as it is a straight line, and two parallel lines could be infinite. Then, he says, the dimension of time has no width or depth, but is linear only, and straight rather than curved, since it is created by the flux of an indivisible instant straight from the past into the future. And so

the first condition which is inconsistent with infinity does not exist in time, since its dimension is linear only, and it is not the terminus of a surface or a solid. Also, the second condition, namely a line's existence in a natural body, offers no impediment to the infinity of time, since it does not have its being in a natural thing. No part of time is simultaneous with another in any subject, but when one part arrives, the other departs. Therefore, there is no cause, so I think, why time could not be actually infinite, that is, actually traversed.¹³

"I say that the whole infinite time has been traversed," insists Henry. "And I say that Aristotle spoke the truth when he defined the infinite as that of which, no matter how much you take, there will always be more."¹⁴ Whence, if the world should now begin to endure for eternity, the proposition: 'infinite time has been traversed' would always be false.

¹² Paraphrased from *ed. cit.*, pp. 251-52.

¹³ "... et sic prima condicio que repugnat infinitati non est in tempore, cum eius dimensio est tantum linearis, et non est terminus superficiei vel corporis. Secunda etiam condicio, scilicet existens linea in re naturali, non impedit in tempore et motu, quia tempus et motus non habent esse in re naturali, nisi secundum aliquid indivisibile eius. Unde nulla pars temporis est simul cum alia in alicuius subiecto, sed una parte adveniente, alia cedit. Et hoc modo non repugnat infinitas rei naturali; nichil igitur est causa, ut credo, quare motus et tempus non possint esse infiniti in actu, id est actu pertransiti." *Ed. cit.*, pp. 253-54.

¹⁴ *Physica* 3, 7 (207b).

And the reason is that the infinite cannot have two termini, although it can have one."¹⁵ And so, having made his point with respect to the situation in case of the world's future eternity, he turns the time line around and places its infinite extent in the past. "Therefore," he says, "if the world should have existed from eternity, it would not have had a beginning in the past, but it may well have a terminus in the other direction."¹⁶ And so there is no contradiction in assuming that an infinite time has been actually traversed.

This point led Henry to consider the contention that if any year is infinitely distant, they all are. "Just as a father precedes his son in duration by a definite amount," he answers,

"and a month precedes a year [i.e., is completed before a year is], and morning precedes noon by three hours, thus from eternity morning has always preceded noon by three hours; and by as much as morning precedes the noon of this day, by that much the whole multitude of infinite mornings preceded the infinite multitude of noons. And let us grant that between [some] two years is an infinite number of years. That [infinitely distant] year is not some given or designated year, nor is it even designatable, but it is simply a year; just as if the world, starting now, were going to endure to eternity, the multitude of all the revolutions of the moon would be greater than the multitude of the revolutions of the sun by twelve months, or eleven, and not by this or that eleven months, but eleven."¹⁷

¹⁵ "Dico igitur quod totum tempus infinitum est pertransitum, sicut necesse est dicere, sicut magis dicetur inferius. Et ad illud Philosophi 3 *Physicorum*, dico quod Philosophus verum dicit, nam in rei veritate incipere accipere de infinito in quacumque parte volueris, numquam erit totum acceptum. Unde si mundus deberet nunc durare in eternum, numquam ab isto die computendo esset devenire ad totum tempus infinitum acceptum, ita quod si mundus inciperet duraturus in eternum, hoc esset semper falsa: 'tempus infinitum est pertransitum.' Et ratio est quia infinitum non potest habere utrumque terminum, licet posset habere alterum terminorum." *Ed. cit.*, p. 245.

¹⁶ "Unde si mundus fuisset ab eterno, non habuisset principium a parte ante, bene tamen haberet terminum a parte post. *Ed. cit.*, p. 245.

¹⁷ "... tantum quantum precessit modo pater istius duracione filium suum, et per consequens menses annum, et mane precessit meridiem per 3 horas, sic dico quod ab eterno semper mane precessit meridiem per 3 horas, et quantum hoc mane precessit hunc meridiem huius diei, tantum tota multitudo infinitorum mane precessit infinitam multitudinem meridierum. Et si tu arguas, accipio tempus in quo unum excedit aliud puta annum, esto quod inter istum annum et istum diem sint infiniti dies et anni.

Respondeo quod illud mane vel ille annus non est aliquis unus annus signatus vel datus, nec etiam signabilis, sed est annus; sicut nunc, si mundus esset duraturus in eternum, multitudo revolutionum solis per 12 menses vel XI, nunquid hos XI menses vel illos determinatos, sed XI." *Ed. cit.*, p. 254.

In spite of his position as an academic administrator, Henry was an intellectual nonconformist, who was able to take hints from the writings of other men, alter them significantly, use them to subject accepted notions to rigorous criticism, and arrive at some valuable conclusions of his own. He picked up from Robert Grosseteste the contention that infinities are not equal,¹⁸ but he used this idea in a drastically different way and established it on a much firmer dialectical foundation. From Augustine he took the insight that a set cannot contain itself,¹⁹ although he used it in a way which would greatly have annoyed the bishop of Hippo. From Aquinas he took the notion of the proportionality between infinite quantities,²⁰ but he pushed the implications of this position far beyond what "brother Thomas" had done. And from Bonaventure and his followers he derived some of his most telling arguments, which he altered only by refusing to concede that the implication of unequal infinities was a contradiction.

Henry's *quaestio* seems to have caused quite a stir at Oxford, and the questions of two other English theologians immediately take note of it. The first of these is Thomas of Wylton, whose question, *Whether these propositions can be simultaneously true: that motion was eternally produced by God; and that if God produced the world freely, he was able not to have produced it*, is extant today in a single MS, Vat. Borgh. 36, folios 71r-78v.²¹ It is a carefully reworked disputation, more in the form of a treatise.

It begins with a single argument *quod non* and a single *contra*. This is followed by an outline of procedure: "Since various people have differing opinions about the *possibility* of the eternity of motion, I shall proceed thus: First I shall give the three opinions about the eternity of the world and respond to each of them according to the form of the question. Second, I shall say what I understand to be the better opinion in this matter, both concerning the possibility of the eternity of the world and according to the form of the question. And third, I shall respond to the arguments of others which seem to lead to conclusions other than those I hold."

He then proceeds to summarize the range of opinions, beginning with Aristotle. After presenting Aristotle's arguments for the eternity of time

¹⁸ Grosseteste, *Comm. in Physica* 4, ed. Dales, pp. 91-93.

¹⁹ Augustine, *De civitate Dei* 12, 19.

²⁰ Aquinas, *Quaestiones disputatae*, q. 4, art. 3.

²¹ From this MS it has been printed, with little or no correction or other editorial work, by W. Senko, "Thomas of Wylton, *Quaestiones quodlibetales*," *Studia Mediewistyczne* 5 (1964), pp. 156-90. I have sometimes had to alter the text in order to make sense of the argument.

and motion, he cites Maimonides's and Aquinas's opinion that Aristotle did not consider these arguments to be a demonstration. This he refutes by appealing to the text and context of *Metaphysica* 12 and *Physica* 8 and by quoting Grosseteste's *Hexaëmeron* to the effect that those who try to make a Catholic of Aristotle risk making heretics of themselves, and he states as his opinion that Aristotle clearly taught the eternity of time and motion, and consequently the world, as an established fact, not merely as a more probable opinion. But he insists that Aristotle did admit creation, although eternal creation.

The next group of opinions holds that motion not only began, but that it could not have been eternal, and he gives the various formulations of this position: that the fact of being a creature is inconsistent with being eternal; the inconsistency between being eternally created and being freely created; that what receives its being from another must be posterior to that thing not only by nature, but also by duration; the symmetry of going from being to non-being and from non-being to being, both of which imply a temporal ordering; that what is conserved in being must already have been created; the infinity arguments from Bonaventure's commentary on the *Sentences*; a full and accurate reproduction of Peckham's argument that if the world were of infinite temporal duration, the part would be greater than the whole; that an eternal world would imply an infinite mean between two termini (men and sons in this example); the stone of infinite size argument, and a similar example using triangles instead of stones. Thomas, in some detail, shows the inadequacy of all these arguments, drawing upon Aquinas, Grosseteste, and especially Aristotle.

This masterly summary and evaluation of the range of opinions on the subject is followed by a brief but clear Response:

I do not see that from any proposition known to us *per se* in the natural light of our intellect or clearly deduced from these that it is possible to be convinced that the world could not have been eternal. Second, I say that I do not see that from any proposition evident in the natural light of our intellect that it is possible to be convinced that the world has not existed from eternity, although on the basis of faith, which in this matter is more infallible than certitude resting upon natural reason, we know that the world began in such a way that, really and by duration, it had its being after its non-being. Third, I also say, according to the form of the question, that I do not see that these two propositions can be simultaneously true: that motion and the world, or any other thing, be eternally produced by God, and that God freely produced

the world in the sense that he could not have produced it if he had so wished.²²

He follows this with a remarkable statement concerning the comparative rationality of philosophy and the content of faith, which is very close to the opinion of Siger of Brabant, holding not only that Aristotle restricted his investigation to the way the world works after having been created, but that his arguments are more probable than the truths we hold on faith, although his conclusions are nonetheless false.

First therefore I say that no argument which I have heard against the possibility of the eternity of motion appears to me to be clearly demonstrable depending on natural reason alone, according to which the principles of the Philosopher for the eternity of motion are more in accord with those things which are apparent to us in sense and from sensible things than the contrary principles; nor is this illogical, because false [conclusions], according to the Philosopher, *Topica* 8, are more probable than some truths.²³

The third section of the work consists of replies to those arguments against his positions which he considers to be the strongest, most of which are from Henry of Harclay's question *Utrum mundus potuit esse ab eterno*, to which Thomas had alluded before but had not discussed in detail. Because of the length and complexity of these arguments, I shall confine myself to a consideration of the most interesting responses.

He begins by denying that we should hold that non-being is in a creature *per se*, even though it receives its being from God. He also denies that going from non-being to being (creation) is similar to going from being to non-being (annihilation).

²² "[N]on video, quod ex aliquibus propositionibus in lumine naturali intellectus nostri per se notis nec ex eis evidenter deductis convinci possit mundum non posse fuisse aeternum. Secundo dico, quod non video, quod ex aliquibus propositionibus in lumine naturali intellectus nostri evidentibus convinci possit mundum non fuisse ab aeterno, licet cum omnimoda certitudine adhaesionis per fidem, quae in ea est et infallibilior quam certitudo innitens rationi naturali, [...] quod mundus incepit ita quod realiter et duratione habuit esse post non esse. Dico etiam tertio quod ad formam quaestionis, quod non video, quod ista simul stant, quod motus et mundus vel aliquid aliud sit aeternaliter a Deo productum, cum hoc quod Deus libere produxit mundum, ita quod potuit eum non produxisse, si voluisset." *Ed. cit.* pp. 167-68.

²³ "Primo igitur dico, quod nulla ratio, quam audiui contra possibilitatem aeternitatis motus, apparet mihi evidenter concludere innitendo solum rationi naturali, secundum quod principia Philosophi pro aeternitate motus magis concordant his, quae apparent nobis in sensibilibus et ex sensibilibus, quam principia contraria, nec est hoc inconveniens, quia multa falsa secundum Philosophum 8^o Topicorum sunt probabiliora quibusdam veris." *Ed. cit.*, p. 168.

Thomas then attempts a solution to the question of whether the infinite can be traversed, claiming that there is nothing in the writings of Aristotle, including his definition in *Physica* 3 that the infinite is that of which there is always more to be taken, which would force him to deny that it could. But this applies only to an infinite which is bounded at one extreme when the motion is toward this terminus. His reason for this is that

because traversal in this manner implies in its *ratio* a terminus both of the motion and of that through which the motion was made *ex parte post*. From this it follows that if some finite motion should begin, when it had traversed a certain amount of space, both that motion and the space would be finite in both directions. And therefore it necessarily follows that if something should begin to be moved through that space in the direction in which it is infinite, it is impossible that it would ever be traversed, but there would always remain something to be traversed. But the *ratio* of being traversed does not bespeak a beginning of motion or space through which the motion occurs, but only the arrival at the terminus so that none of that space should be omitted, in the manner described by Aristotle, which, by transferring the word "traversal" -- which is properly used of space -- to the revolutions of the sky, is not repugnant to infinite days which would be traversed any more than to finite days, because it is of the definition of the past that it previously was and now is not. This applies equally to infinite days, if they should have gone by, just as to two.²⁴

He then proceeds to attack Bonaventure's contention that there is no order in the infinite because there is no first. While admitting that there must be some point in relation to which the ordering takes place, he points out that something infinite in only one direction satisfies this condition. Past time is terminated at the present in the direction of the

²⁴ "... quia eo modo pertransitum et in ratione sua importat terminum et motus et eius super quod fit motus ex parte post; ex quo sequitur, quod, si aliquid incipiat motum finitum et cum hoc pertranseat aliquod spatium, [quod] ille motus sit finitus et spatium finitum ex utraque parte. Et ideo sequitur necessario: si aliquid incipiat moveri super spatium versus illam partem, qua est infinitum, impossibile est, quod unquam sit pertransitum, sed semper remaneret aliquid pertranseundum. Sed esse pertransitum ex ratione sua nec dicit initium motus nec spatii, super quod fit motus, sed tantum dicit deventionem ad terminum, ita quod nihil illius spatii sit praetermissum modo dicto secundum Aristotelem, quod transferendo nomen pertransitionis, quod proprie dicitur de spatio, revolutionibus caeli, non repugnat diebus infinitis, quod complete sint pertransiti quam diebus finitis, <quia> est de ratione praeteriti, quod prius fuerit et modo non sit. Haec autem ratio aequaliter confert infinitis diebus, si praecesserint, sicut duobus." *Ed. cit.*, p. 171.

future; the future is also terminated at the present and is infinite *ex parte post*; therefore both past and future have an order to the present. And Aristotle says in *Physica* 4 that before and after in time are understood in comparison to the present, not in comparison to last and first.

Thomas now turns to the *quaestio* of Henry of Harclay, whose arguments he summarizes fully and clearly. But after having stated Harclay's positions, he says:

Although this imagination concerning the infinite is subtle and is founded on subtle arguments, nevertheless I understand the common and ancient way better, or less badly. First therefore I will say what my concept of the infinite is by positing a distinction concerning it; second, I shall argue against the aforesaid way [i.e., Harclay's]; and third, I shall respond to the arguments on which the aforesaid opinions rest.²⁵

He begins by elucidating a distinction, which he had employed earlier in his *quaestio* but without elaboration, between the *infinitum simpliciter*, which lacks termini in both directions and which is determined only in the sense that it is in potency to nothing extrinsic to itself whereby it might be made greater; and an *infinitum quo*, by which he means "some dimension or duration which, although it does not have a terminus in one direction and consequently does not receive an addition in that direction, according to the meaning of the Philosopher and the Commentator, nevertheless has a terminus in the other direction."²⁶ The *infinitum simpliciter* cannot be added to, and one such infinite is not greater or less than another. But the *infinitum quo* can receive an addition, but only in the direction in which it is terminated; and one infinite of this sort can be greater or less than another. "In such an infinite are found some conditions of the part and the whole, but not all, because it is one condition of the part that taken a certain number of times, it should yield or exceed

²⁵ "Ista imaginatio licet subtilis sit circa infinitum et super rationes subtiles fundatur, tamen viam communem et antiquam melius vel minus male intelligo. Primo ergo dicam imaginationem meam circa infinitum, ponendo quandam distinctionem de infinito, secundo arguam contra viam praedictam et tertio respondebo ad rationes, quibus innititur opinio praedicta. *Ed. cit.*, p. 174.

²⁶ "Per infinitum autem quo intelligo dimensionem aliquam vel durationem, quae licet ex una parte non habeat terminum nec per consequens ex illa parte non recipit additionem secundum intentionem Philosophi et Commentatoris, tamen ex altera parte terminum habet." *Ed. cit.*, p. 175.

the whole. And this condition is found in neither the *infinitum simpliciter* nor the *infinitum quo*.²⁷

Building upon this foundation, Thomas denies Harclay's contention that an infinite can be added to (actually Henry had said "can be exceeded") in the direction in which it is infinite.

For by the very fact that the parts of a continuum are somewhere, it follows that they are joined at one common terminus, which is the end of one part so that outside that terminus there is none of that part, and the beginning of another so that before that terminus there is nothing of that part. Therefore, if an addition of parts of the same *ratio* could be made to a line in the direction in which it lacks a terminus, it would follow that an addition is made to that which, in that direction, has a terminus coupling it with that to which it is added, outside of which nothing of it is; and consequently in that direction it was finite, although it has been posited as infinite in that direction. And then it would follow that it is finite and infinite in this direction, which implies a contradiction.²⁸

And the same argument, he says, holds for time or any duration.

Thomas then turns his attention to Harclay's arguments concerning the traversal of the infinite. He attacks Henry's arguments but concedes his conclusion that infinite time must have been traversed in act, and he insists that there is nothing absurd in this concerning an *infinitum quo*.

He also denies Harclay's contention that if you subtract something from an *infinitum simpliciter* you make it less. Thomas responds that

no addition or subtraction can be made at either extreme, because it has no extremes. But if God should remove a day or a year from the whole of infinite time, then there would be two times distinct from each other, each of which would be an *infinitum quo* because

²⁷ "In tali etiam infinito inveniuntur aliquae conditiones partis et totius, non tamen omnes, quia haec est una conditio partis, quod ipsa aliquotiens sumpta reddat totum vel excedens ipsum totum, quae nec invenitur <in> infinito simpliciter nec in infinito quo." *Ed. cit.*, p. 175.

²⁸ "Eo ipso enim, quod partes continui sunt aliqua, sequitur, quod copulentur ad unum terminum communem, qui est finis unius partis, ita quod extra illum terminum nihil illius partis est, et principium alterius, ita quod ante illum terminum nihil illius partis est. Ergo, si linea ex parte, qua caret termino, possit fieri additio partium eiusdem rationis, sequeretur ex hoc, quod sibi fit additio, [sequitur] quod ab illa parte habet terminum copulantem ipsum cum illo addito, extra quod nihil eius est, et per consequens ex illa parte est finita, cum tamen ex illa parte ponitur infinita; et sic sequeretur, quod ex eadem parte esset infinita et finita, quod implicat contradictionem." *Ed. cit.*, pp. 175-76.

each would have a terminus at one end, and here an addition or subtraction can be made so that they can be called greater or less. And according to this, since there would be two times and not one, they are not to be compared to anything other according to one equality.

If the first case is given, I say that if a day or a year or a thousand years were subtracted, the remaining time would still be equal to what it was before the subtraction, if one understands by equal "neither more nor less," because it remains no less infinite in both directions, and consequently in its genus it is *infinitum simpliciter*. And when it is said that it is not intelligible that a part of some size be taken from a *quantum* without making it less, this is true if it be taken from a *quantum* to which greater and less are not repugnant. But it has been said that more or less require in their subject an end or terminus, that is, quantities which have two extremes or at least one, so that they belong to a *quantum* only in the direction in which it is finite, not infinite.²⁹

To Harclay's example of the sun's preceding an infinite generation of men, Thomas again denies the argument but grants the conclusion. He also concedes that there were more revolutions of the moon than of the sun, "nor is this illogical, because both sets of revolutions are *infinita quo*, and therefore in such things greater and less can be conceded."³⁰

²⁹ "[N]on potest fieri additio vel subtractio ab extremo alterius infiniti, quia nullum extremum habet, et ita, si aliquid debeat auferri ab huiusmodi infinito, hoc esset ex parte motus, verbi gratia ut si Deus subtraheret a toto tempore infinito ex parte ante et ex parte post secundum opinionem Aristotelis istam diem vel illum annum, quod fieret vel concinando partes residuas temporis vel non concinando. Si detur secundum, tunc esset ponere duo tempora distantia ab invicem, quorum [solum] utrumque esset infinitum quo, quia utrumque ex una parte habet terminum, et sic secundum illa extrema potest fieri additio et subtractio, secundum quas dici possunt maius et minus, ut supra dictum est, et secundum hoc, cum sint duo tempora et non unum, non sunt comparanda ad aliquid aliud secundum unam aequalitatem. Si datur primum, dico, quod per subtractionem illius diei vel anni vel mille annorum, si essent, aequale remanebit tempus residuum certumque, licet aequale, si nihil esset subtractum, vel etiam sibi ipsi, dato, quod nihil subtractum fuisset, exponendo aequale per neque maius neque minus, quia nihil minus remaneret ex utraque parte infinitum et per consequens in genere suo simpliciter infinitum. Et quando dicitur, non est intelligibile, quod pars auferatur a quanto, nisi faciat minus, verum est, si auferatur a quanto, cui maioritas et minoritas non repugnat; sed dictum est, quod magis et minus in subiecto suo requirunt finem seu terminum, scilicet in quantitativibus, quibus conveniunt in duobus extremis vel ad minus in uno, ita quod quanto non conveniunt nisi ex se ea ratione vel parte, qua finitum est, non infinitum." *Ed. cit.*, pp. 177-78.

³⁰ "[N]ec hoc est inconveniens, quia tam istae revolutiones quam illae infinitum quo, et ideo in talibus potest concedi maius et minus." *Ed. cit.*, p. 178.

The last question Thomas takes up is one which had been a part of the tradition since the 1230s and which had caused Aquinas such difficulty, namely that an eternal past duration of the world would entail an actually infinite number of presently existing departed souls. His solution is bold and original, going far beyond Aquinas and also beyond what Harclay had said on the same subject, especially in its investigation of the properties of infinite sets and its implicit distinction between ordinals and cardinals.

He begins by giving two arguments of the *opponens*, the first holding that notwithstanding the order of the souls to the time of their production, their multitude would be infinite *simpliciter*, and hence an addition could be made to an infinite multitude or quantity *simpliciter*, a proposition which has previously been denied; the second finding a principle of essential ordering -- namely unity, duality, trinity, etc. -- among departed souls, from which it would follow that, if the world were eternal in the past, there would now be a species of number in act which exceeds unity to infinity, thus implying two contradictions: that some species of number is infinite, and that there would be an infinite mean between two extremes.

Thomas replies to the first argument by holding that no multitude is or can be infinite *simpliciter* because

whatever unity is in a particular number, by considering that number as a certain multitude absolutely speaking, is equally the principle of that multitude, whether it be a finite or infinite multitude. For whatever unity along with another constitutes a duality and with a third a trinity and so on to infinity, if the multitude be infinite, thus from the standpoint of each of these unities there is an order in ascending, although in descending there is no order [since there is no point from which to start counting]. For this reason I say that every multitude posited to be or to be possible in act is finite with respect to this [starting point], for the reason that an addition can be made to it, because the *ratio* of a beginning does not take away from a prior unity. Through this a new unity is added or subtracted. But it is completely repugnant to any continuous infinite that something which is in it should be its beginning or end. ... And therefore such a thing is an *infinitum simpliciter*, because the *ratio* both of a beginning and an end is repugnant to it, and therefore the addition of parts of the same

ratio is repugnant to such an infinite, and also a subtraction through which it might be made less.³¹

To the second he responds that "one must concede that an infinite multitude of species of number, and consequently an infinite multitude of things essentially ordered, might exist in act, that is, an *infinitem quo* of species of number."³² Order is not inconsistent with an infinity of this kind, since, even though it would not have an order in ascending, it nevertheless has unity and "how much" in itself. Nor does it follow from this that there would be some species of number which is infinite in act; "but it only follows that there would be some infinite multitude in act of the species of number, each of which is finite in itself, which infinite multitude of species nevertheless is not some species of number."³³ To posit a greatest finite thing or greatest number implies a contradiction, because one could always add one to it.

Therefore it does not follow: "the multitude of souls is infinite in act, therefore some species of number is infinite in act," for this implies a contradiction. But it only follows that one cannot give a greatest number which is a species of number. And I concede (for it is necessary to concede) that there are not so many species of number but that there might be more in act, of which each one is nevertheless finite; although the multitude comprehending all the infinitely many species would be infinite, nevertheless that infinite multitude is not some species of number.³⁴

³¹ "... quia quaecumque unitas in numero aliquo considerando illum numerum, ut est multitudo quaedam absolute, aequaliter est principium illius multitudinis, sive sit multitudo finita sive infinita. Quaelibet enim unitas cum alia constituit dualitatem et cum tertia trinitatem et sic deinceps in infinitum, si multitudo sit infinita, ita quod ex parte unitatis cuiuscumque est status in ascendendo, licet in descendendo non est status. Propter quod dico, quod omnis multitudo posita in actu vel possibilis est infinita [*ed. et MS: finita*] quo, propter quod potest sibi additio fieri, quia ratio principii a priori unitate non aufertur. Per hoc nova unitas additur vel abstrahitur. Sed alicui continuo infinito repugnat omnino, quod aliquid, quod sit in eo, sit eius principium vel finis ... finis sibi repugnat; et ideo additio partium eiusdem rationis tali infinito repugnat, et etiam subtractio, per quam fieret minus." *Ed. cit.*, pp. 179-80.

³² "... Oporteat concedere, quod infinita multitudo specierum numeri et per consequens multitudo infinita essentialiter ordinatorum sit in actu, scilicet specierum numeri infinitate quo." *Ed. cit.*, p. 180.

³³ "... sed solum sequitur: specierum numeri, quarum quaelibet est in se finita, sit multitudo quaedam actu infinita, quae tamen multitudo infinita specierum non est aliqua species numeri." *Ed. cit.*, p. 180.

³⁴ "[I]deo non sequitur: 'multitudo animarum est infinita in actu, ergo aliqua species numeri est actu infinita' (hoc enim implicaret contradictionem), sed solum sequitur, quod non convenit dare maximum numerum, qui sit species numeri. Et

This is by far the most satisfactory treatment of the "infinite souls" argument which we have yet encountered. It is followed by a logical argument, directed at Harclay, the most important point of which is that "when it is conceded that the multitude of souls is infinite, 'multitude' does not supposit for some determined [part] or individual of the multitude, but 'what supposits' and 'that for which it supposits' are the same thing, and it is a certain multitude not determined with respect to the determination of species or individual, but comprehending in itself infinitely many species of number."³⁵ And the matter of an actual infinity of souls is concluded by a naturalistic argument, that separated souls cannot apply their power to anything outside themselves moving locally, but only in the body, where they have the appropriate boldly organs.³⁶

This section is followed by a series of investigations of Aristotle's teaching on a number of points, in which Thomas's principal tactic is to say that the most one can claim against Aristotle is that he argued as a non-Christian (*infidelis*), not that his reasoning is faulty. On the question of Aristotle's and Plato's teaching on the eternity of the world, he conducts a detailed, perspicacious inquiry and comparison, based on the texts themselves, the context of their doctrines as a whole, and the authority of the ancients who described their teaching (in this section, like Harclay, Thomas depends heavily on Grosseteste's *Hexaëmeron*).

This long *quaestio* ends with a Response to the form of the question: "I do not see that these two propositions can both be true (*simul stant*): that the world has existed in its real being in effect placed outside [the divine mind] from eternity; and that God freely produced the world so that he was able not to have produced it."³⁷ He justifies this position by a series of tight arguments, based largely on Aristotle and Augustine, and responding to the arguments of Aquinas, Henry of Ghent, and Harclay, although not by name.

concedo (oportet enim concedere), quod non sint tot species numeri, quin sint plures in actu, quarum quaelibet tamen est finita, licet multitudo omnes infinitas species comprehendens sit infinita, non tamen est illa multitudo infinita species numeri." *Ed. cit.*, p. 180.

³⁵ [C]um conceditur, quod multitudo animarum est infinita, multitudo ibi non supponit pro aliqua specie determinata vel individuo multitudinis sed idem est quod supponit et pro quo supponit, et est quaedam multitudo non determinata determinatione speciei vel individui, sed comprehendens in se infinitas species numeri." *Ed. cit.*, p. 181.

³⁶ *Ed. cit.*, p. 181.

³⁷ "[N]on video, quod simul stent: mundum fuisse ab aeterno in esse reali in effectu extra suum positum et quod Deus libere libertate contradictionis mundum produxisset ita, quod potuit ipsum non produxisse." *Ed. cit.*, p. 186.

Although Thomas of Wylton's *quaestio* was deeply indebted to that of Harclay, Thomas nevertheless greatly improved upon Henry's presentation, both by pointing out that some of his positions were mistaken and in providing more satisfactory arguments for many of the points on which the two men agreed. The arguments concerning the properties of the infinite, although they seem strange to a modern mathematician since they are carried on within a context dominated by Aristotle and Euclid, are nevertheless of a very high quality.

Thomas also exhibits a high degree of sophistication in dealing with the doctrine of Aristotle, pointing out that Aristotle was not a Christian and that many of the errors attributed to him (concerning the soul, creation, etc.) are in fact irrelevant to his thought, and that others cannot be inferred from his own writings but were accretions added by the commentators through the centuries. He is quite clear that Aristotle did teach the eternity of time, motion, and the world as demonstrated truths; but he is equally clear that this position is intelligible and therefore possible. However, God could not have created the world from eternity and still created it freely. Since Aristotle did not hold that God created freely, this is no problem for him. It is a problem only for those who hold it on faith that creation was a free unconstrained act of the divine will.

Less original than Harclay's and less competent than Wylton's are the questions of the English Franciscan, William of Alnwick. Although he too is deeply indebted to Harclay and borrows portions of his longer question almost verbatim from him, William's views on the eternity of the world are quite different. He is at pains to defend the position of Bonaventure, many of whose arguments he recasts in more modern form. William treated the eternity of the world in several places, most notably in a short question, *Utrum deus produxit mundum sine principio duracionis* (question 4 of his *Additiones*), contained in MS Vat. lat. 876, folios 295^{rb-va} and in a lengthy question *Utrum asserere mundum fuisse ab aeterno fuerit de intentione Aristotelis*.³⁸ The first question is quite compressed, and the arguments are given in summary form. The second however is extremely full, and although it is ostensibly only about what Aristotle's teaching was on the eternity of the world, in fact it treats the general question of whether the world could have existed from eternity, just as Harclay's was ostensibly about whether God could have made the world from eternity, but in fact dealt at great length with the matter of Aristotle's true doctrine. There were few if any masters by 1316 who would maintain that Aristotle had not taught the eternity of the world; indeed the most recent

³⁸ Edited by Faustino Antonio Prezioso, *L'eternità aristotelica del mondo in una "Quaestio" inedito di Guglielmo Alnwick* (Padua, 1962).

author Alnwick cites as holding this view is Aquinas, and as we have seen, even Aquinas changed his mind in his last works.

The long question begins with eleven arguments *quod non* (i.e., claiming that Aristotle had not taught the doctrine of the eternity of the world). These arguments all employ Bonaventure's tactic of "turning Aristotle against himself,"³⁹ by showing that a beginningless world is contrary to Aristotle's own principles. They all use the words of Aristotle and Averroes to disprove the eternity of time, motion and the world, and most of them depend on the assumption that whatever is preceded in duration by anything, whether collectively or separately, cannot be eternal.

This is followed by the Response, which summarizes the authorities (Aquinas and Maimonides) and arguments for the position that Aristotle did not teach the eternity of the world as a demonstrated truth, which is very similar to Harclay's presentation. These authors and arguments are refuted by citations of Aristotle's works and by the authority of Ambrose, Boethius, Peter Lombard, and by the source of this marshalling of authorities, "Robertus Lincolniensis episcopus, magnae siquidem auctoritatis doctrine." William then quotes the same section of Grosseteste's *Hexaëmeron* which Harclay had used. He concludes his Response by saying that we can only know a philosopher's views from his words, and that Aristotle's words clearly assert that the world is eternal.

Alnwick is at his best in the final section of the question, his replies to the separate arguments. In the course of his reply to the assertion that God would not precede in duration an eternal multitude, William gives two examples to prove his own position:

One can give a first point on a line, with respect to which all the parts of the line have an order according to position. But one can nevertheless not give a first part of that line. And therefore, although the parts of the line would have an order, and each of them would be posterior to the first point, nevertheless the whole multitude of parts is not posterior to the first point, understanding "whole" categorematically, because thus they include the first point as something of itself, such as a terminus; and the whole is not posterior to its beginning ... just as the whole is not prior to the terminus at which it is terminated. Another example concerns the first instant of time and all succeeding time, because the parts of time have an order of duration, each of whose parts is posterior in

³⁹ The phrase is that of Richard Sorabji, *Time, Creation & the Continuum*, p. 202.

duration to the first instant, because thus it includes the first instant as its beginning and something of itself.⁴⁰

Then he interjects: "But you say," and gives a summary of Thomas of Wylton's argument concerning the *infinitum quo*.

In his next reply, William attempts to counter Harclay's argument about the possible traversal of infinite future and past time by drawing on Godfrey of Fontaines' discussion of the division of a continuum.

The multitude of infinite numbers is infinite, and God sees that each part of that multitude is finite. Nevertheless he will not see that the whole is finite in multitude; rather, the multitude of infinite numbers seen by God is infinite. ... This can also be seen in the divisions of a continuum to infinity *ex parte post*. For God sees or knows the multitude of infinite possible divisions that can be made, and he sees that each future division of the continuum will be traversed, and nevertheless he does not see that the whole multitude of those divisions will be traversed, because thus the division of the continuum would end sometime. ... Thus also, if the division of the continuum had been going on from eternity, God would have seen that each division of the continuum was posterior in duration to that dividing it, and he would have seen that whole multitude. Nevertheless he would not have seen that whole multitude to be posterior in duration to that which was dividing it, because thus it would not have been from eternity.⁴¹

⁴⁰ "[E]st dare primum punctum in linea, respectu cuius omnes partes lineae habent ordinem secundum situm. Sed tamen non contingit dare primam partem lineae et ideo, quamvis partes lineae ordinem habeant et quaelibet illarum sit posterior primo puncto, non tamen tota multitudo partium est posterior primo puncto, accipiendo totum categorematice, quia sic includunt primum punctum, ut aliquid sui tamquam terminum et totum non est posterius principio suo ..., sicut nec totum prius est termino ad quem terminatur. Aliud exemplum est de primo instanti temporis et toto tempore sequente, quia partes temporis habent ordinem durationis, cuius quaelibet pars est posterior duratione primo instanti, quia sic includit primum instans ut principium suum et ut aliquid sui." *Ed. cit.*, p. 59.

⁴¹ [M]ultitudo infinitorum numerorum est infinita et Deus videt quod quaelibet pars illius multitudinis est finita, nec tamen videt quod tota in multitudine sit finita; immo multitudo infinitorum numerorum visa a Deo, est infinita ... Potest etiam poni exemplum de divisionis continui in infinitum a parte post. Deus enim videt, sive cognoscit multitudinem infinitarum divisionum continui possibilium fieri et videt quod quaelibet divisio continui futura erit pertransita et tamen non videt quod tota multitudo illarum divisionum erit pertransita, quia sic staret aliquando divisio continui ... Sic etiam, si divisio continui fuisset ab aeterno, Deus videret quod quaelibet divisio continui esset posterior dividente duratione et videret totam illam multitudinem, nec tamen videret totam multitudinem esse posteriorem duratione ipso dividente, quia sic non fuisset ab aeterno." *Ed. cit.*, pp. 59-60.

Near the end of the question, William composed an essay, which includes an apostrophe to Aristotle, asserting the superior rationality of the Christian view and containing the essence of his own position:

To the first argument, when Aristotle argues that "if the mobile is made, therefore [it is made] by motion or change," it must be said that this does not follow, because motion was made, even understanding motion whole according to itself, because thus it is from a mover effectively, and every such thing was or is made; indeed its being is in continuous becoming. The Commentator also says ... that it is possible for the mobile itself not to be, but it is necessary from another effectively. But such a thing is produced. Therefore motion is made or produced. Therefore either by motion or by change, but you concede neither. Therefore you must necessarily concede that something was made, and nevertheless was not made by motion or change. And just as you, Aristotle, concede that something was made from eternity through simple emanation, without motion and change, thus we more truly concede that it was made *de novo* without motion and change through simple emanation. For the *ratio* of making can more truly be saved *de novo*, by which something has being after non-being, than [*ab aeterno*], by which something has being and not after non-being. For this [latter] is not called "being made" except in a way which is scarcely intelligible, as Augustine says in 10 *De civitate Dei*. It must be conceded further that God could have made the first mobile before he made motion, so that it remained at rest before it was moved. Nor is this said irrationally, as the Philosopher argues, for God does nothing irrationally. For if he had done this, he would have shown that he freely and contingently moved the heaven however he wished, and therefore not irrationally. For God can do many things by his absolute power which he did not do, and nevertheless if they had been done, they would have been done rationally.⁴²

⁴² "Ad primam rationem cum arguit Aristoteles, quod si mobile est factum, ergo per motum aut mutationem, dicendum quod non sequitur, quia motus est factus etiam accipiendo motum secundum se totum, quia sic est a movente effective et omne tale est factum sive fit; immo eius esse est in continuo fieri. Commentator etiam dicit ... quod mobile est de se possibile non esse; necessarium autem ab alio effective; tale autem est productum; motus ergo fit sive est productus; aut ergo per motum aut per mutationem et neutrum concedis; habes ergo necessario concedere aliquid esse factum et tamen nec per motum, nec per mutationem. Et sicut tu, Aristoteles, concedis aliquid esse factum ab aeterno per simplicem emanationem, absque motu et mutatione, sic nos verius concedimus esse factum de novo absque motu et mutatione, per simplicem emanationem. Verius enim potest salvari ratio factionis de novo, qua aliquid habet esse post non esse, quam qua aliquid habet esse et non post non esse. Hoc enim non dicitur fieri

What appears from this whole question is that Alnwick was not so concerned to establish Aristotle's teaching on the eternity of the world as he was to show that even according to Aristotle's own principles, creation *de novo* is more rational than creation *ab aeterno*. He expressly attacks the necessitarian aspects of Aristotle's thought and invokes the distinction between God's absolute and ordained power. He is much more conservative than Harclay or Wylton, but his question marks a significant advance in arguments for the traditional position.

Sometime after 1319 and before 1324, when he left England, William of Ockham composed two questions on whether God could have made the world from eternity, a long one and a short one.⁴³ They exhibit the same form and make the same major points, except that the argument is generally fuller in the long question, which also contains a lengthy consideration of Henry of Ghent's position. Ockham, like the other Oxford masters, confines his investigation to whether the world could have been beginningless, i.e., whether it could have been of infinite temporal duration in the past, and does not confuse the issue by bringing in the thorny matter of the simplicity of eternity.

Both questions begin by saying that neither side of the question can be proved beyond doubt: the negative side cannot because the proposition includes no manifest contradiction; and the affirmative side cannot because none of the arguments on behalf of it is conclusive. But Ockham's own position, as stated in the short question, is that *probabiliter* God could have made the world from eternity, because there is no manifest contradiction.⁴⁴ Norman Kretzmann has pointed out that to Ockham, *probabilia* are taken to be "necessary [propositions which are] neither the principles nor the conclusions of demonstrations, [but] because of their truth, are apparent to everyone, or to most people, or [at least to those

nisi modo quodam vix intelligibili, ut dicit Augustinus X *De civitate Dei*. Ulterius concedendum est quod Deus potuit fecisse primum mobile ante motum, ita quod quievisset ante motum, nec tamen hoc est irrationabiliter dictum, ut arguit Philosophus. Deus enim nihil operatur irrationabiliter. Si enim hoc fecisset, ostendisset se libere et contingenter ad utrumlibet movere caelum et ideo non irrationabiliter. Multa enim potest Deus facere de potentia sua absoluta quae non facit, et tamen si fierent, rationabiliter fierent." *Ed. cit.*, pp. 66-67.

⁴³ Long question: *Utrum mundus potuit fuisse ab aeterno per potentiam divinam in Guillelmi de Ockham Opera Philosophica et Theologica* 8, *Venerabilis Inceptoris Guillelmi de Ockham Quaestiones Varias*, edd. G. I. Etzkorn, F. E. Kelley, and J. C. Wey, CSB, 59-97; short question: *Utrum Deus potuit fecisse mundum ab aeterno in Opera* 9, *Venerabilis Inceptoris Guillelmi de Ockham Quodlibeta Septem*, ed. J. C. Wey, CSB, pp. 128-35.

⁴⁴ "Secundo dico probabiliter quod Deus potuit fecisse mundum ab aeterno, propter hoc quod nulla apparet contradictio manifesta." *Ed. cit.*, p. 129.

who are wise]."⁴⁵ Hence his position is a good deal stronger than it might appear at first glance.

But there are, he says, two sources of difficulty concerning this position: first, because some arguments conclude that the world's being made from eternity does imply a contradiction; and second, because it seems possible to prove that since the world was possible from eternity, that it could therefore have existed from eternity. The remainder of both questions is made up of the statement and refutation of all the arguments given for both sides. Like Henry of Harclay and Thomas of Wylton, to both of whom he is much indebted, Ockham is particularly interested in the properties of the infinite, and to a somewhat lesser extent in the arguments of Henry of Ghent.

The arguments which he presents for the first difficulty are drawn from Bonaventure, Algazel, Harclay, Pecham, and, in the long question, Henry of Ghent. He introduces his reply to them by admitting that in the way Christians understand the term "creation," the non-being of a creature really preceded its being by duration. But the question here is

whether that which is produced so that its non-being really preceded its being -- and by duration, as the faithful posit by faith -- can, without repugnance, be produced so that its non-being would not have preceded its being by duration. And when we speak thus, there does not appear to be any manifest contradiction either on the part of God or of a creature, although the arguments to the contrary might not be able to be easily solved so that they would satisfy all those who hear them. And so I say that if God can do anything which does not include a contradiction, he could have made the world from eternity.⁴⁶

In his replies to the first three arguments -- on the traversal of an infinite series, on the actual existence of infinitely many departed souls, and that the infinite revolutions of the moon would exceed the infinite revolutions of the sun -- Ockham simply paraphrases Harclay's arguments. But to the fourth, that if the past is infinite, there is some past

⁴⁵ Norman Kretzmann, "Ockham and the Creation of the Beginningless World," *Franciscan Studies* 45 (1985), 1-31. I am obliged to Prof. Kretzmann for making a copy of his article available to me prior to its publication.

⁴⁶ "Sed hic quaeritur in quaestione: utrum illud quod producitur sic quod eius non-esse realiter praecedit esse, -- et duratione, ut ponunt fideles per fidem --, posset sine repugnantia sic produci quod eius non-esse non praecederet suum esse duratione. Et sic loquendo, non videtur esse aliqua manifesta contradictio nec ex parte Dei nec creaturae, licet rationes in contrarium non possint faciliter solvi ita quod satisfaciant audientibus. Et ita dico quod si Deus potest facere quidquid non includit contradictionem, potuit fecisse mundum ab aeterno." *Ed. cit.*, pp. 67-68.

day infinitely distant from today, he considerably expands and sharpens the arguments given somewhat confusedly by Harclay and improved upon by Wylton. If this were true, he says, then, if there were a finite distance between each of the past days, yesterday would be infinitely distant from today, which is manifestly false.⁴⁷

And if this were so, Pecham's argument that if the past were infinite, the part would be greater than the whole, would follow. But, says Ockham,

this argument is based on a false [assumption], namely that all infinities are equal. For it was made clear above that infinitely many revolutions of the sun have been traversed if the world had existed from eternity, and similarly infinitely many revolutions of the moon. Nevertheless the revolutions of the moon are a greater infinity than the revolutions of the sun. And therefore, on the assumption of the hypothesis, it ought to be conceded that the infinite is greater than the infinite and is exceeded by the infinite. And consequently the infinite is not equal to the infinite, and this [is true] either when the infinite which has been traversed is compared to [another] infinite which has been traversed or to an infinite which is to be traversed. For it is clear that if the world had existed from eternity, the whole of past time coupled to the beginning of this day would be actually infinite, and similarly the whole of past time coupled to the end of this day. And nevertheless the whole of past time coupled to the end of this day would be greater than the time coupled to the beginning of this day -- at least by one day it would be greater. In the same way, I say that the whole of past time coupled to the beginning of this day and the whole of future time coupled to the beginning of this day are not equal, but one is greater than the other. But which is greater and which is less is difficult or impossible for us to judge. Since therefore this whole deduction is based upon the proposition that all infinities are equal, which is false, as has been proved, it is clear that it does not follow that the part would be greater than the whole.⁴⁸

⁴⁷ *Ed. cit.*, p. 73.

⁴⁸ "[I]llud argumentum fundatur super falsum, scilicet quod omnia infinita sunt aequalia, quod falsum est posita hypothesi. Patuit enim prius quod revolutiones solis sunt infinitae pertransitae si mundus fuisset ab aeterno, et similiter infinitae revolutiones lunae. Tamen revolutiones lunae sunt plures infinitates quam revolutiones solis. Et ideo posita hypothesi debet concedi quod infinitum est maius infinito et exceditur ab infinito. Et per consequens infinitum non est aequale infinito, et hoc sive comparetur infinitum pertransitum ad infinitum pertransitum sive ad infinitum pertranseundum. Patet enim manifeste si mundus fuisset ab aeterno quod totum tempus praeteritum copulatum ad principium huius diei esset actualiter infinitum, et similiter totum tempus

From this argument, he goes on to give a refinement of the arguments of Harclay and Wylton on the actual traversal of the infinite. He begins by reiterating that there are not precisely so many future years as past years, but either more or fewer. But even assuming that there were precisely as many of one as of the other,

then I say that all the future revolutions cannot be traversed, because they are infinite. Because it is generally true that an infinite which at some time was to be got through cannot ever actually be got through. Nor can a "last" be given of such an infinite, because its infinity is always to be taken. But an infinite which at no time was to be got through, but always has been got through, can be traversed in spite of its infinity. Whence by the very fact that something has been traversed which never was to be traversed, it is not necessary that that thing should be finite, but it can be infinite. Now however if the world had existed from eternity, all past revolutions were never to be got through, because in no instant of duration would this proposition have been true: "all such revolutions -- it having been demonstrated that they are all past -- are to be traversed." Therefore the conclusion does not follow.⁴⁹

Kretzmann considers this to be Ockham's most successful argument,⁵⁰ and I am inclined to agree. Although Ockham is clearly indebted to Harclay

praeteritum copulatum ad finem huius diei, Et tamen totum tempus copulatum ad finem huius diei esset maius quam tempus copulatum ad principium huius diei -- ad minus per unum diem esset maius. Eodem modo dico quod totum tempus praeteritum copulatum ad principium huius diei et totum tempus futurum copulatum ad principium huius diei non sunt aequalia, sed unum est maius alio. Sed quid est maius et quid minus, difficile est vel impossibile nobis iudicare. Cum igitur tota illa deductio super istam propositionem quod omnia infinita sunt aequalia, quae falsa est ut probatum est, manifeste patet quod non sequitur quod pars sit maior toto." *Ed. cit.*, pp. 80-81.

⁴⁹ "... tunc dico quod omnes revolutiones futurae non possunt pertransiri quia sunt infinitae. Quia istud est generaliter verum quod infinitum, quod est aliquando pertranseundum, numquam potest actualiter pertransiri. Nec potest umquam dari ultimum talis infiniti, et hoc propter infinitatem suam semper accipiendam. Sed infinitum quod in nullo tempore fuit pertranseundum, potest pertransiri non obstante infinitate sua. Unde eo ipso quod aliquid est pertransitum quod aliquando fuit pertranseundum, est finitum. Sed si aliquid sit pertransitum quod numquam fuit pertranseundum, non oportet quod ipsum sit finitum sed potest esse infinitum. Nunc autem si mundus fuisset ab aeterno, omnes revolutiones praeteritae numquam fuissent pertranseundae, quia in nullo instanti durationis haec propositio fuisset vera 'omnes istae revolutiones -- demonstratis omnibus praeteritis -- sunt pertranseundae.' Ergo non sequitur conclusio." *Ed. cit.*, pp. 81-82.

⁵⁰ Kretzmann, *art. cit.*

and Wylton, he has stated his argument more cogently than Harclay and in a simpler form than Wylton.

The next argument -- against the position of Henry of Ghent -- exists only in the long question. Henry's argument, he says (which he states a good deal more clearly than Henry himself), is faulty in two respects: first because he says that a creature is a non-being by its own nature; and second, because he considers it necessary to distinguish creation and conservation with respect to any creature whatever. In response to the first shortcoming, Ockham says that

it is clear that it is false that a creature is a non-being by its own nature, because if this were so it could not have been made a being by any power. And if some authors say that a creature is a non-being of itself, I say that by such affirmative [statements] they understand negative [meanings], namely that a creature, according to its own nature, is not a being, nor does it have being et cetera, because a creature does not have being from itself, but from another. ... [T]hen it does not follow: "a creature is not a being from itself, therefore it is repugnant to it to have existed from eternity," because it could have existed from another from eternity.⁵¹

To Henry's second shortcoming, the claim that creation and conservation are to be distinguished, Ockham replies that they are not. In a related argument offered in confirmation of Henry of Ghent's position, that in passing from non-being to being, the world would have passed from one contrary to another and that this could not be done without a measurable change, Ockham reintroduces and expands the position he had stated briefly at the beginning of his Response, namely that the argument uses "creation" equivocally. If creation is taken to mean the total production of a thing by an effective agent,

then the world could have been created even if it were eternal, and in this sense you are now created by God. And such a creation does not have any measure, either divisible or indivisible. And in this sense creation does not differ from conservation, because a thing is always said to be created as long as it is conserved. And

⁵¹ "Patet enim quod haec est falsa 'creatura est non-ens secundum naturam suam,' quia si sic, per nullam potentiam posset fieri ens. Et si aliqui auctores dicant quod creatura est non-ens de se, dico quod per tales affirmativas intelliguntur negativas, scilicet quod creatura secundum naturam suam non est ens nec habet esse etc. Quia a se non habet creatura esse sed ab alio ... tunc non sequitur 'creatura non est ens a se, igitur sibi repugnat fuisse ab aeterno,' quia potuit fuisse ab alio ab aeterno." *Ed. cit.*, pp. 82-83.

consequently if the world had existed from eternity, it would have been thus created and conserved from eternity.⁵²

But in the sense the Christians use "creation," a created world could not be eternal.

Also, Ockham denies that if the world had existed from eternity, it would have passed really from one contradictory to another,

because it would never have been under non-being really but would always have been under being, because it would always have been a being and never a non-being. ... "A creature is a non-being" must be understood negatively, not affirmatively, that is, that a creature, according to itself, is not a being. And therefore if the world had existed from eternity, then it would never have been a non-being. And therefore those contradictories, being and non-being, do not belong to it really in the same instant, or in another, because one of them, namely being, would always have belonged to it, and the other, namely non-being, never.⁵³

To refute Henry of Ghent's use of the Aristotelian dictum, "omne quod est, quando est, necesse est esse," Ockham offers a highly technical logical argument to show that Henry had used the phrase improperly. Concerning the question of whether God could have produced the world eternally and contingently, Ockham repeats the arguments and conclusions of Thomas of Wylton. He concludes the long question by saying that

he who wishes to hold that it is repugnant to the world to have existed from eternity can easily respond to the arguments commonly adduced for the opposite position, with this exception, that he cannot assign any manifest contradiction, ... because no contradic-

⁵² "... sic mundus fuisset creatus etiam se fuisset aeternus, et sic tu es modo creatus a Deo. Et talis creatio non habet aliquam mensuram divisibilem vel indivisibilem. Et sic creatio non differt a conservatione quia semper dicitur res creari sic quamdiu conservatur. Et per consequens si mundus fuisset ab aeterno, fuisset ab aeterno sic creatus et conservatus." *Ed. cit.*, p. 85.

⁵³ "... quia numquam fuisset sub non-esse realiter, sed semper fuisset sub esse quia semper fuisset ens et numquam non-ens ... 'creatura est non-ens' etc. intelligunt negativas, scilicet quod creatura secundum se non est ens. Et ideo si mundus fuisset ab aeterno, tunc numquam fuisset non-ens. Et ideo ista contradictoria 'esse' et 'non-esse' non sibi convenirent realiter in eodem instanti nec alio, quia unum semper sibi conveniret scilicet esse, et aliud numquam puta non-esse." *Ed. cit.*, pp. 86-87.

tion, so it seems, is included in the proposition that the world existed from eternity.⁵⁴

All the Oxford masters we have investigated in this chapter were primarily interested in the properties of the infinite and whether the contradictions alleged by Bonaventure to follow from the assumption of a beginningless world were indeed contradictions, and secondarily in whether being created is inconsistent with being eternal.

William of Nottingham's question in his *Sentences* commentary admirably sums up scholastic thought on the eternity of the world prior to the disputation of 1316. It concluded for the anti-Thomist position in a way which was doctrinally quite conservative (holding that *creatio de novo* was capable of at least *quia* demonstration, denying absolutely the possibility of the actual infinite in creation, and holding that an eternal creation implies a number of contradictions) but moderate in tone and lacking the animosity which motivated so many treatments on the same question.

But after 1316, a succession of brilliant Oxford thinkers changed the nature of discussions on the possible eternity of the world. Harclay was the groundbreaker, questioning the intuitive assumption that all infinities are equal and setting forth several respects in which they seem not to be, and investigating how the concepts of part, whole, more, less, and equal apply to the infinite. But his zeal often outstripped his rigor, and even when his conclusions were true, his arguments were often seriously flawed. He distinguished between an infinite multitude and any particular member of that multitude; the multitude itself could be infinite, but any specified member of it is finite, and the multitude is not a member of itself. He claimed somewhat ambiguously that the infinite can be exceeded in the direction in which it is infinite: one of his examples is that there can be an infinite series of prior and posterior members, such as the sun's preceding the generation of man to infinity; and another argues for quite a different point, that the cardinality of the set of infinite revolutions of the moon would be twelve times as great as that of the set of infinite revolutions of the sun. This ambiguity would persist among those who took issue with him, namely Wylton and Alnwick. He asserted that the infinite can be added to and subtracted from, but he was quite vague in his arguments for this point. And he flatly asserted

⁵⁴ "Qui autem voluerit tenere oppositum, scilicet quod repugnat mundo fuisse ab aeterno, potest faciliter respondere ad rationes communiter adductas ad oppositum, hoc excepto quod non potest assignare aliquam manifestam contradictionem ... quia nullam, ut videtur, contradictionem includit mundum fuisse ab aeterno." *Ed. cit.*, p. 94.

that a past infinite could be traversed, although he was unable to give a cogent dialectical presentation of this contention.

But Harclay had opened up a path of investigation which was ably followed by Thomas of Wylton, whose analysis of the infinite surpasses anything I know of until the nineteenth century. He showed that there could be an order in the infinite, since the infinite may have one terminus (but not two); and in time, before and after are related only to the present, so that both past and future have an order with respect to their single common terminus, the present. In developing this argument, he touches upon the non-commutative character of addition of a finite quantity to an infinite set: if a single day is added to the infinite number of past days, the result is one day longer than all infinite past days; but if even a thousand years were subtracted (or added) within the infinite set, it would still be infinite, and neither greater nor less than before. He succeeded where Aquinas had failed in solving the problem of infinitely many actual departed souls. But most impressive of all (and most necessary, since it was the strongest of Bonaventure's *impossibilia* and apparently had Aristotle's authority behind it) was the problem of the traversal of the infinite. Again, Harclay had had the crucial insight but had stated his argument in imprecise terms. Wylton improved upon Harclay's solution considerably. He argued that the infinite could be traversed, because traversal requires only arrival at a terminus and that none of the intervening space (or time) was omitted.

But it was Ockham who devised the strongest rebuttal to the claim that the infinite could not be got through. In denying that a past infinite was ever "to be got through," he undercut the argument of Alnwick, used by a succession of Franciscans from Thomas of York on, that since every past day was once future, the number of past days must be finite. Ockham also provides a strong refutation of Henry of Ghent's position by attacking Henry's understanding of a creature's non-being. And on the argument about creation and conservation being the same or different, Ockham says in effect that it is a quibble about words: if one understands creation to mean "having being after non-being," then a creature must have its non-being before its being. But if one accepts another intelligible meaning of creation, i.e., "having one's being totally from another," then a creature could have existed from eternity, and a creature is "created" as long as it is conserved.

Alnwick has not played much of a role in this summary, but his question is nonetheless important. He attacked the positions of Harclay and Wylton at their most vulnerable point, namely whether an infinite series could be exceeded in the direction in which it is infinite. Although his argument depends on his attributing infinite temporal extension to God, so that if God preceded his creation by duration, then the world could

not be eternal, Harclay's formulation (that the sun preceded the generation of each man and all men) is equally vulnerable. But more arresting is his extensive use of Aristotelian and Averroist doctrines to show that the world could not be eternal, and his insistence that the Christian position is superior philosophically to that of "the philosophers," although he never claims, as had the extreme conservatives of the thirteenth century, that it is strictly demonstrable.

CHAPTER TWELVE

THE EARLY FOURTEENTH CENTURY: PARIS

The first quarter of the fourteenth century was perhaps the most brilliant and significant period of medieval discussions of the eternity of the world. We have already investigated the discussions at Oxford during this period. But at Paris too, discussions of the eternity of the world were quite different in nature from those of the preceding quarter century, and although most of the old standard arguments continued to be used, often in a much enhanced form, new approaches and ways of looking at the question dominated the debates.

With the passage of time, the personnel of the Parisian faculty of theology changed considerably, and the highly charged atmosphere of the 1270s and 1280s cooled down to allow reason to prevail over passion. When the question of the possibility of an eternal world and related matters reappeared in the Quodlibetal disputations of the 1290s, it was not, as we have seen in chapter 10, the Dominicans and Franciscans who took the lead, but a Carmelite, an Augustinian Hermit, and a secular. As the new century got under way, the older Mendicant orders took up the question, but seculars, Cistercians, and the newer Mendicant orders also played an important role in the faculty of theology. And in spite of Tempier's condemnation of 1277, the Aristotelian view of the eternity of the world also reappeared among the masters of arts.

As early as 1302, at Oxford, the English Dominican Nicolas Trivet, in his first Quodlibet,¹ reasserted somewhat timidly Aquinas's position on whether it was necessary that God precede the world by duration, or only by nature. "Although the venerable doctor, brother Thomas of Aquino, sufficiently treated this question in many places," he said, "nevertheless he seems to have expressed his opinion more precisely in a certain

¹ Basel Universitätsbibliothek MS IV 4, fol. 54rb-va. Although this Quodlibet is reckoned the fifth in the Basel MS and is so numbered by Ehrle, "Nicolaus Trivet, sein Leben, seine Quodlibet und Quaestiones ordinariae," *BGPM. Texte und Untersuchungen. Supplementband II* (Münster i. W., 1923), p. 43, Glorieux, *La Littérature Quodlibétique II*, 247, argues for its being the first, and I have followed his dating.

treatise which begins: *Supposito secundum catholicam fidem*,² that is, his *De aeternitate mundi*. This is a most unsatisfactory question, which, after summarizing Aquinas's initial arguments, gets sidetracked into a discussion of whether God could have created the universe by the necessity of nature rather than by free choice. It concludes that in neither of the two ways of understanding "by the necessity of nature" could God have created the universe in this way, but it never makes clear the relevance of this point to the question under discussion. Trivet never gives a clear reply to the question of whether God must precede the world by duration, although the tenor of the first part of the question implies that he need not have. His most forceful statement is that "creation can be understood in another way than to receive being after non-being, namely that non-being preceded being only by nature, not by time."³ It is fortunate for Trivet that his reputation rests on his *Annales*, not his theology, and fortunate for Aquinas that his cause was taken up by more able and aggressive defenders of his views.

But the traditional views found an able champion in the English Franciscan William of Ware in his questions on the *Sententiae* 2, q. 9, *Utrum repugnat alicui creature, inquantum creatura est, fuisse ab eterno*,⁴ dating probably from around 1305. It conducts a thorough review of the subject and even includes arguments, such as the "two means" argument, which go back to the 1220s, but its focus is on the particular matters which were of concern in the first few decades of the fourteenth century. It is a measured and nonpolemical work, whose author has thoroughly understood all the arguments he presents, whether he accepts them or not. Its very thoroughness and moderate tone make it difficult, until one is well into the work, to tell which side of the question the author is on. The somewhat unusual structure of the question adds to the ambiguity. But at the end, it becomes clear that, although the author commands the entire arsenal of arguments on both sides, his own position is that a creature, insofar as it is a creature, could not have existed from eternity, but must have come into being after having not existed, not in the sense

² "Licet sufficienter pertractet in multis locis venerabilis frater Thomas de Aquino, tamen magis ex intencione videtur quod declarat eum in quodam tractatu qui sic incipit: Supposito quod secundum fidem catholicum." *MS cit.*, fol. 54rb.

³ "Alio modo potest accipi creatio pro eo quod est accipere ens post non-esse, ita quod esse solum precedat non-esse natura, non tempore." *MS cit.*, fol. 54va.

⁴ I have used Florence, Bibl. naz. MS conv. sopp. A IV 42, fols. 74rb-77vb. For additional MSS containing William's questions, see E. Longpré, "Guillaume de Ware O.F.M.," *La France Franciscaine* 6 (1922), 1-22 and Augustinus Daniels O.S.B., "Zu den Beziehungen zwischen Wilhelm von Ware und Johannes Duns Scotus," *Fraziskanische Studien* 4 (1917), 221-238, on p. 223, n. 1. I am indebted to Sevus Gieben, O.F.M.Cap. for providing me with this bibliography.

that there was any passage of time before it came into being, but that there was a first instant in which it began. This had been the dominant view since Philip the Chancellor, and in its most elementary form it simply holds that "the world was made from nothing, therefore it must have existed after having not existed." Many other arguments had been devised to support it, all of them patently inadequate. But whether the consequent followed from the antecedent or not, it was clear that many necessary intermediate steps in the argument had been omitted. It was this omission which William undertook to supply. His is a much more subtle and sophisticated presentation of the position that any we have encountered before.

The question begins with four *quod non* arguments: 1- Augustine's example of the footprint in the dust from eternity; 2- a creature behaves toward not existing in the past as it does toward not existing in the future; since it can remain eternally in the future, it could have been eternally in the past; 3- the being of a creature is not determined for any specific time; and 4- it is impossible for a being to have a potency for being and non-being to infinity in past time without having it in the future, or in the future with having it in the past.

This rather brief presentation is followed by eighteen arguments *contra*: 1- Augustine's definition of a creature as "from that which is not and never was"; 2- a creature was once a non-being; 3- if a creature were eternal, its measure would be the same as the measure of God, and would also equal his wisdom and power; 4- it is impossible for anything to be corruptible and incorruptible at the same time; 5- a creature cannot have opposite potencies at the same time; 6- the non-being of a creature naturally precedes its being; 7- a creature is the terminus of a making; 8- since creation is from nothing, it cannot be eternal in the future or the past; 9- God could not have made something more quickly from nothing than from pre-existing matter; he could not have made the world eternal from pre-existing matter, because then matter would have existed before the world; therefore he could not have made it eternal from nothing; 10- the division of a continuum; 11- the infinite cannot be traversed; 12- infinite revolutions of the sky would necessitate one revolution's being infinitely long ago; 13- the revolution following the infinitely distant revolution would also be infinitely distant from now, etc.; 14- an angel (a creature) would know infinitely many things in act; 15- infinitely many generating men would result in an infinite mean between two extremes; 16- the generated man would not be from eternity; 17- a quotation from Ambrose, *Hexaëmeron*; 18- Augustine's statement that a creature cannot be coeternal with the creator.

At this point, William says that some people hold otherwise, that a creature can be either new or eternal. He cites the appropriate texts of

Aristotle's *Topica* and Maimonides's *Dux dubitantium*, and he then presents an essay on behalf of this position:

Something is said to be possible in three ways, according to the Philosopher: according to active potency, according to passive potency, or when the subject and predicate are logically and appropriately joined. We must distinguish between the absolute and dispositive power of God. From the standpoint of God's absolute power, the world could have existed from eternity. But from the standpoint of his dispositive power, and since God did not dispose the world to have existed from eternity, I say that he could not have produced the world from eternity. But if we speak of the passive potency of a creature, this is twofold. And since the world, on its part, was not from eternity by such a passive potency, the world was not able to be made. But if we understand "possible" in the third way, according to which the subject and predicate are logically joined, there are two ways of understanding this: 1- either because the predicate and subject have a natural immobile coherence, so that from such a coherence, that which follows from the possible also follows from the necessary. And in this way of understanding "possible" it was not possible that the world was from eternity, nor even in time, because this includes necessity. Since therefore God did not make the world from the necessity of his nature, it follows that in this way it was not possible for the world to have been from eternity. Therefore, if the question asks about the possibility toward both, it is said that the world could have existed from eternity, because God by his free will was able to produce it from eternity, but not with the determination "after he produced it." And here are the arguments for this position.⁵

Then follow eleven arguments: 1- a creature could have been from eternity because if something depends totally on another for its being, it is not repugnant to it to be from eternity, because it would still be a creature; 2- Augustine says that those who admit the world was made say it was eternal in a way which is scarcely intelligible; therefore it is in some way intelligible; 3 and 4- the "two means" argument from Richard of St. Victor; 5- different meanings of "ex" (from Anselm's *Monologion*); a creature is after God by nature, not by time; 6- since being eternal does not include a contradiction with respect to an agent of infinite will, it does not include a contradiction; 7- since infinity is that of which you can always take more, you cannot give an instant before which it was

⁵ I have paraphrased this from *MS cit.*, fols. 74vb-75ra. I intend, with the collaboration of Omar Argerami, to provide a critical edition of this very important question.

impossible for the world to be created; therefore it could be eternal; 8- same argument in a different formulation; 9- passive potency must correspond to active potency of God; therefore the world is eternal; 10- whatever a first cause can do through secondary causes, it can also do by itself; 11- denial that if God created the world from eternity, he created it by necessity.

There seems to be a problem in the MS at this point, since William undertakes a detailed discussion of a matter which has not been presented yet. A marginal note in the MS here says "*Prima solutio*," but what follows is an investigation of necessary and contingent propositions:

Nevertheless some people say that a proposition *de contingenti* is necessarily always contingently true for any instant, and for any instant it is contingently true for the time preceding that instant or for the time following that instant, because for the instant in which it is true, it is not contingently true. Similarly it is said in the proposition that this always was and is contingently true: "God could make the world from eternity." But he did not make the world from eternity. This is necessary, and such necessity following the potency of a thing can stand with freedom.

Nevertheless I say otherwise, that a proposition contingently true in the same instant and for the same instant is true and contingently true. ... Therefore, just as this was contingently true from eternity: "it is possible for God to make the world from eternity, thus it is true everywhere: the world always was from eternity," thus this is contingently true: "he always made the world from eternity," as the philosophers understand the word "make." Therefore, ... if he had produced it from eternity, either he was able not to have produced it before, or after. I say that not before or after, but for the instant in which he produced the world he was able not to have produced it, because he produced it freely. But this qualification does not make necessity. Whence, just as the proposition: "I run" can stand absolutely, I still run contingently and nevertheless with the condition: "while I am running, I am necessarily running"; so that absolutely the proposition: "God produced the world from eternity" stands contingently, because he produced it contingently, and nevertheless with the qualification: "he produced it when he produced it" stands the proposition that he necessarily produced it. Whence those people imagine that the proposition *de contingenti* never was true and contingently true; which is false. Otherwise, it is briefly said to the argument that "if he produced it from eternity, he produced it necessarily," is true by the condenominated necessity which follows from the positing of a

thing, and this stands with complete freedom and not absolute and antecedent necessity.⁶

This is followed by replies to the *contra* arguments, beginning with 5, which is called 2 (there is no mention of 1), then 7, which is called 3, through 15, from the standpoint of one who admits the possibility of the world's having been created from eternity. These are followed by a reply to the *argumentum principale* of the *quod non* section and to numbers 2 and 3 of the *contra* arguments.

And now, having done an admirable job of presenting the case for the possibility of an eternal world, the author changes his stance and says: "Nevertheless I answer the question according to the authorities of the saints." This is marked "*positio propria*" in the margin. It is buttressed first by six quotations from the Christian Fathers and then by four arguments establishing the position by reason. Then come nine replies to contrary arguments (none of which is given in the text), the last of which cites "Lincolniensis" on *De divinis nominibus*.

The question ends by jumping back to the beginning to the three arguments of the *quod non* section.

This is a remarkable work in the range of arguments considered, the subtlety and sophistication of the author, and the moderate tone of the

⁶ "Dicunt tamen aliqui quod propositio de contingenti necessario est semper vera contingenter pro alico instanti, et pro alico instanti est vera contingenter pro tempore precedente instans, vel pro tempore sequente instans, quia pro instanti in quo est vera, non est contingenter vera, sicut hec propositio: 'homo curret cras' est contingenter vera pro toto tempore precedente diem crastinum, sed pro die crastina non est vera contingenter, sed necessario 'homo curret.' Similiter dicitur in proposito quod hec semper fuit et est contingenter vera: 'deus potuit mundum fecisse ab eterno.' Sed hic non fecit mundum ab eterno. Hec est necessaria, et talis necessitas sequens potenciam rei potest stare cum libertate. Dico tamen aliter quod propositio contingenter vera in eodem instanti et pro eodem instanti est vera et contingenter vera. ... Sicut ergo ab eterno hec fuit contingenter vera: 'possibile est deum fecisse mundum ab eterno, sic est contingenter vera ubique semper fuit mundus ab eterno,' sic est contingenter vera illa: 'semper facit mundum ab eterno,' sicut philosophi acceperunt facere. Igitur ... si produxisset ab eterno, aut potuit non produxisse ante, aut post. Dico quod non ante nec post, sed pro instanti in quo produxit mundum potuit non produxisse, quia libere produxit, non tamen cum tali reduplicacione facit necessitatem. Unde sicut stante illa absolute, ego curro adhuc contingenter curro, et tamen cum illa condicione 'dum curro,' necessario curro, sic absolute 'deus produxit mundum ab eterno' stat contingenter, quia contingenter produxit, et tamen sub illa reduplicacione: 'produxit quando produxit' stat quod necessario produxit. Unde ipsi ymaginantur quod propositio de contingenti numquam sit simul vera et contingenter vera, quod falsum est. Aliter breviter dicitur ad argumentum quod 'si ab eterno produxisset, necessario produxisset,' verum est necessitate condenominata que sequitur ex posicionem rei, et hec stat tamen omnimoda libertate et non necessitate absoluta et antecedenti." *MS cit.*, fol. 75rb-va.

entire work. I have outlined it in such detail both because it exists only in MS and because it sets the context of early fourteenth-century discussions of the eternity of the world, summarizing many arguments from disputations which have otherwise not come down to us and presenting a very strong case for the traditional opinion, so often held on flimsy grounds, that it is repugnant to the essence of a creature to have existed from eternity. These arguments are given in the final section, to which we now turn.

Although a creature has its actual being from God, nevertheless it is a possible being *ex se*, since if it were not, it would not be able to be created by another. ... Therefore, if a creature has its being from God from eternity, a creature is *ex se* a possible being from God from eternity. But something is not possible *ex se* toward some actuality which it has only from another, nor, because *ex se* it is not a being, according to that actuality. For if it were, it would not be reasonable that it receive the same thing from another, because nothing receives from another what it already has *ex se*, because then ... it would have the same thing twice. Therefore, a creature has its being from God from eternity. I ask therefore: does every creature have at once (*simul*) its being from God from eternity and its possible being and non-being *ex se*; or does it first have its being from eternity; or does it first have possible being and non-being *ex se* from eternity? [Neither the first nor second ways.] ... And the third way is necessary, that is, that a creature should have possible being *ex se* before it has being from God. ... Therefore it either did or did not have possible being and non-being *ex se* temporally, prior to having being from God. If in the first way, since there is no duration except of time or eternity, therefore either by the duration of time [or eternity, and if of time], then necessarily in a prior time a creature is a possible being or non-being *ex se*, and in a prior time a creature would have being from God. And if so, therefore a creature cannot have being from God by the duration of eternity, because eternity, since it does not have parts, does not have before and after. But if it were said that a creature's ability to be and not to be (*posse esse et non esse*) in act is prior by nature to its being in act by God, ... then further, since the essence of a creature is not only *ex se* possible by the act of existence, but also a possible non-being (for if it were *ex se* it would be impossible for it not to exist, which is its contradiction), it would be *ex se* a necessary being, because it is impossible that non-being and necessary being should be equivalent. Therefore, a creature is not only prior by nature to the possibility to be and not to be in act, but it is a possible non-being in act before it is made a being in act by God. Therefore we shall compare a creature's possibility to be and its possibility not to be according to before

and after, and together (*simul*) by nature and duration, both with respect to the essence of a creature and with respect to act. First with respect to essence. I ask whether the ability to be in existence and the ability not to be in existence have being at the same time in the existence of a creature, or not at the same time but one before and the other after, because contrary potencies, according to the Philosopher and Commentator 1 *De caelo et mundo*, cannot be at the same time in the same thing, just as contrary acts cannot. For if, as they say, [contrary] potencies were in it at the same time, and potencies can be posited in act, therefore at the same time contrary potencies could go forth into contrary acts, and from the possibility posited in being there would follow something false and impossible in essence. Therefore a creature's ability to be (*posse esse*) in existence precedes its ability not to be in existence, and *econtrario*, and this by nature or duration. To be able to be in existence cannot precede by nature because it is impossible that, until it is, it precedes its very being by nature, because a creature has non-being *ex se* ... and being from another, and that which it has from itself is prior to that which it has from another, ... and that which precedes in act, precedes potency to that act, because in the same thing, potency precedes act at least by nature, if not always by duration, according to the Philosopher 9 *Metaphysica*. Its ability not to be, therefore, precedes by nature its ability to be.

There remains a doubt as to which of these precedes the other by duration. But if one of them precedes by duration, therefore either the one *posse* precedes the other by necessity, or the other way around, or either of them can precede the other indifferently. And this last is impossible. ... But if one of them preceded by duration, and this by necessity, the very *posse esse* of a creature would not precede its being by duration, since the order of the acts would be according to the order of the potencies. Therefore the *posse non esse* of a creature would precede, from the necessity of the nature of a creature, and then a creature would not be able not to be according to another duration unless it previously had been from another. And thus neither would its non-being be prior *ex se* to its being from another by another duration. For nothing prior by nature occurs to anything which is not suited to it insofar as it is *ex se* suited to occur prior by duration. Nevertheless, this is impossible, because as soon as that thing is, which occurs to something *ex se* by nature, it is prior to that which occurs to it from another, although this can be simultaneous in duration.

Therefore ... in a creature it is necessary that its ability not to be should of necessity precede by duration. Wherefore also its non-being, not only according to nature, but also according to duration, will precede its being, so that, [regarding] different contraries in act in being, that which always occurs to it prior by nature, also occurs to it prior by duration. But to occur prior by nature, not

duration, cannot occur unless the same thing is attributed to different things and to one through the other, as happens concerning the principles of the world, according to the Philosopher, which can be prior by nature, not by duration. It remains therefore that a creature could not have being from another nor from itself unless it should have non-being prior by duration, which happens to it *ex se*, and thus it can in no way be posited that it could have been made from eternity, but *ex tempore* -- not that time preceded its being, but because in the first instant of time it received being, and before in all eternity it was in non-being in the manner in which it was produced, according to the prophecy of Moses.⁷

⁷ "[E]tsi creatura a deo habeat esse actu, creatura tamen ex se est possibile esse, quoniam si non esset ex se possibile, actum creandi non posset habere ex alio. ... Ergo, si a deo habet creatura esse ab eterno, creatura ex se est possibile esse a deo ab eterno. Non est autem aliquid possibile ex se ad actum aliquem quem non habet nisi ab alio, nec quia ex se non est ens secundum actum illum. Si enim esset ens secundum actum illum, non esset rationabile ad recipiendum idem ab alio, quia nichil ab alio recipit quod ex se iam habet, quia tunc ... haberet bis ipsum. Ergo a deo creatura esse habet ab eterno.

Quero igitur aut simul omnis creatura a deo habet esse ab eterno, et ex se possibile esse et non-esse, aut prius habet esse ab eterno, aut prius habet ex se possibile esse et non-esse ab eterno. ... Et tercius modus est necessarius, scilicet quod creatura prius ex se habeat possibile esse quam a deo esse. ... Ergo aut prius duratione habet ex se possibile esse et non-esse quam a deo esse, aut non. Si primo modo, cum non sit duratio nisi temporis aut eternitatis, aut ergo duratione temporis, et tunc necessario in tempore priori creatura est possibile esse et non-esse ex se, et in tempore priori creatura habeat esse a deo, et si sic, non ergo creatura ab eterno potest habere esse a deo non duratione eternitatis, quia eternitas, cum non habeat partem et partem, non habet prius et posterius. Si vero dicatur quod creature posse esse et non esse secundum actum est prius natura quam esse actu a deo ... tunc ulterius cum essentia creature non solum ex se est possibile actu existencie, sed etiam possibile non esse, (si enim ex se esset impossibile non esse, quod est contradictio eius) esset ex se necesse esse, quia impossibile non-esse et necesse esse equipollent. Ergo creatura non solum prius est natura posse esse et non-esse actu, sed est etiam posse non-esse actu quam sit esse actu a deo.

Quare ergo comparando inter se posse esse creature et eius posse non-esse secundum prius et posterius et simul natura et duratione et respectu essentie creature et respectu actuum, et primo respectu essentie. Quero aut posse esse in existentia et posse non-esse in existentia simul habent esse in existentia, aut secundum prius et posterius non simul, quia contrarie potentie, secundum Philosophum et Commentatorem 1 *Celi et mundi* non possunt simul esse in eodem, sicut nec ipsi actus contrarii. Si enim, ut dicunt, potentie essent insimul, et potentie modo quo sunt, possunt poni in actu, simul ergo potentie contrarie exirent in actus contrarios, et ex possibili posito in esse sequeretur falsum et impossibile in essentia. Ergo creature posse esse in existentia precedit posse non-esse in existentia, aut e contrario, et hoc natura vel duratione. Posse autem esse in existentia non potest precedere natura, quia non esset ut, donec est, precedit natura ipsum esse, quia creatura habet non-esse de se ... et esse ab alio, et quod habet ex se prius est eo quod habet ex alio ... et quod precedit actum precedit potentiam ad illum actum, quia in eodem potentia precedit actum natura saltem, etsi non semper duratione, secundum Philosophum 9 *Metaphysice*. Posse non-esse ergo natura precedit posse esse.

And with this, we are brought back to Grosseteste's assertion that the non-being of the world was in eternity.

In this discussion are subsumed, often without specific mention, a number of traditional subsidiary questions; for example, the "two means" argument, the *creatio actio* and *creatio passio* correlation, and whether creation from eternity must be the result of necessity and be inconsistent with creative freedom. And it sharpened the concepts of how something created from nothing must have a temporal beginning of its existence and how God could precede the world by duration without there being any passage of time before the creation. Surprisingly there is no independent consideration of infinity, a subject which so intrigued Bonaventure and many other Franciscans and which would be of such interest to the Oxford scholars Henry of Harclay, Thomas of Wylton, and William of Ockham, whom we discussed in the preceding chapter. All in all, however, it is the most able presentation of the conservative position since Bonaventure.

The extreme subtlety and the highly technical nature of Ware's argumentation make it difficult to follow. In fact, Fr. Gedeon Gál, when he reached this argument in his presentation of William's doctrine, said: "Praeter auctoritates adducantur etiam rationes philosophicae et quidem

Restat ergo dubitatio quid istorum precedit duratione. Si autem alterum eorum precedit duratione, aut ergo de necessitate hoc posse precedit illud, aut econtrario, vel indifferenter utrumque istorum potest precedere alterum, et est illud ultimum impossibile. ... Si vero alterum precedit duratione, et hoc de necessitate, non precederet in esse creature duratione ipsum posse esse, cum actuum ordo sit secundum ordinem potentiarum. Ergo de necessitate ex natura creature precederet eius posse non-esse, et ita creatura non posset secundum durationem aliam non esse ex se nisi prius habeat esse ab alio. Et sic nec esset prius ex se non-ens natura quam esset ens ab alio in duratione alia. Nichil enim convenit alicui prius natura quod non est natum eidem quantum est ex se prius convenire duratione. Cum autem est impossibile, quia ut donec est, quod convenit aliam ex se natura est prius eo quod convenit eidem ab alio, etsi possit esse simul duratione. Necessarium est ergo ... quod de necessitate in creature duratione precedat posse non-esse. Quare et eius non-esse non solum secundum naturam, sed et secundum durationem precedet esse suum, ita quod diversa contraria actu in essendo eidem semper quod prius convenit ei ex natura, convenit ei prius duratione. Convenire autem prius natura, non duratione, hoc non convenit nisi idem attribuatur diversis et uni per alterum, ut convenit de principiis mundi, secundum Philosophum, quod possunt esse priora natura, non duratione. Restat igitur quod creatura non possit habere esse ab alio nec a se nisi prius duratione non-esse habeat, quod convenit ei ex se, et sic nullo modo potest poni quod fieri potuit ab aeterno, sed ex tempore, non quod tempus precessit esse suum, sed quia in primo instanti temporis recipit esse et prius in tota eternitate fuit in non-esse quemadmodum modo productus est, secundum prophetiam Moysi." *MS cit.*, fol. 76ra-va.

satis subtiles, quas tamen nostrum non est hic exponere."⁸ But William's colleagues were equal to the task. Probably in the year 1307, the Dominican Harvey Nedellec composed a treatise with the traditional title, *Utrum mundus potuerit esse ab eterno*,⁹ in which he vigorously reasserted the basic positions of Thomas Aquinas on the eternity of the world and defended them against the attacks which had occurred since Thomas's death. Although Henry of Ghent is the only modern opponent Harvey names, it was William of Ware's complex argument for the necessity of a creature's newness to which he replies most fully and most successfully.

He proceeded by reducing the question to six subsidiary questions: 1- whether making (or to be made) and conserving (or to be conserved) are the same; 2- whether it is repugnant to that which exists from eternity and necessarily to be from another effectively; 3- whether it is repugnant to that which is a necessary being *per se* from eternity to be from another effectively; 4- whether it is repugnant to that which is formally and *per se* a necessary being to be from another effectively; 5- whether it was Aristotle's meaning that those things which are posited as eternal and necessarily existing should be effectively from another; and 6- whether a creature could exist from eternity.

He first treats the crucial question of whether creation and conservation are the same. If they were different, the arguments that creation had to come first and therefore have a beginning had considerable force. But if they are the same, there is no obvious impediment to a creature's having existed from eternity, always having received its full and complete being from God. He declares for the Thomist position that making and conserving are the same, not only in successive beings, such as time and motion, where being consists in a succession of part after part so that one part always succeeds another *de novo*, but also in permanent beings, whose being does not consist in the successive acquisition of part after part but whose whole being exists at once. Once this has been established, the succeeding three questions follow easily. But it is in the sixth question,¹⁰ whether a creature can exist from eternity, that Harvey gets to the heart of the matter.

⁸ Gedeon Gál, "Gulielmi de Ware, O.F.M. Doctrina philosophica per summa capita proposita," *Franciscan Studies* 14 (1954), 155-80, 265-92, on p. 274.

⁹ *Quolibet Hervei. Subtilissima Hervei Natalis Britonis ... in Tractatus VIII videlicet: De beatitudine; De verbo; De eternitate mundi; De materia celi; De relationibus; De pluralitate formarum; De virtutibus; De motu angeli* (Venice, 1513, repr. Ridgewood, N. J., 1966), fols. 24va-32vb.

¹⁰ In the printed edition, the fourth question has dropped out, and "Whether a creature can exist from eternity" is numbered fifth.

The arguments which he gives against the possibility of a creature's existing from eternity are: 1- that which is made by motion cannot be eternal because motion precedes the made thing by duration; nor can a thing made by emanation be eternal, because emanation is in an instant, and one must therefore posit a first instant of its existence; 2- a creature's being is acquired from another and therefore is not eternal; 3- no potency can precede something eternally in act; 4- Henry of Ghent's denial of the analogy with predestination; 5- there cannot be an infinite mean between two extremes; 6- a creature cannot be in potency to being and non-being at the same time and therefore must be so sequentially. "These are the arguments," he says, "which Henry calls demonstrations, but no intelligent person will be persuaded of their probability."¹¹

Harvey's Response immediately attacks the position that no creature can have existed from eternity:

Some people, because of the arguments given above, which they call demonstrations, say that no creature can exist from eternity. But because these arguments, as will become clear in my Response, persuade only slightly or not at all, either because they are sophistical or founded on false assumptions, therefore it seems that one must hold otherwise, that is, that the world, or at least some creature, could have existed from eternity.¹²

He then gives four considerations which might prevent the world's existing from eternity, quickly dismisses the first two, and devotes the remainder of his Response to investigating the third and fourth: because a creature is a possible non-being, and because it is from nothing.

In order to refute the first (and he seems to have William of Ware's treatment especially in mind here), he asserts that a creature is a possible being and a possible non-being. It is possible toward either of these opposites, which means that it can be impeded from being either of them in act, since it is not either by necessity. These opposites cannot actually exist in it at the same time, but the possibility for either opposite can exist absolutely and separately at the same time. Although "what is, when it is, necessarily is," this necessity is not to be understood in an absolute sense. The subject retains a possibility for the other opposite,

¹¹ "He sunt rationes quas Henricus vocat demonstrationes: cum tamen homini intelligenti non probabiliter persuadeant." *Ed. cit.*, fol. 30va.

¹² "Quidam, propter rationes prius positas quas vocant demonstrationes, dicunt creaturam aliquam non posse esse ab eterno, sed quia ille rationes, ut patebit in respondendo, nihil vel modicum persuadent, quia vel sunt sophystice vel fundantur super fallaciam. Ideo videtur aliter esse dicendum, scilicet quod mundus potuit esse ab eterno, saltem quod creatura aliqua potuit esse ab eterno." *Ed. cit.*, fol. 30vb.

because neither opposite is determined by necessity. It can therefore be impeded, because it is possible that it behave otherwise toward either of the opposites, or because it is in potency to opposites. But the fact that it can be impeded is not the cause of its not being determined toward one of the opposites by necessity. Rather, because it is not so determined, therefore it can be impeded. If it were impossible for a thing to be in potency to opposites, it would follow that nothing would be able to be except while it is, because its potency for being could not exist simultaneously with its non-being, which is opposed to it.

From these arguments, he concludes:

Just as that which now is behaves toward the possibility of not being now, thus that which is from eternity behaves toward the possibility of not being from eternity, provided that it be made [freely] by an agent cause and not from the necessity of its nature. To that which is now in act, the possibility of not being now in act is not repugnant absolutely. This is not because of some pre-existing impediment ... but because the other of the opposites is not determined by necessity to be in it. Therefore similarly, to that which is from eternity, the possibility not to be from eternity is not repugnant even though no impediment should have preceded, provided that it not be made by an agent of necessity.¹³

Thus Harvey has attacked the major flaw in Henry of Ghent's argument by showing that there is no necessity for a temporally preceding impediment to a creature's existence or non-existence.

The second part of Harvey's Response investigates one of the most widely held positions concerning the impossibility of an eternal world, namely that creation from nothing necessarily entails a temporal beginning. He begins by distinguishing, as had Aquinas, two kinds of making: the kind we are accustomed to, from some pre-existing matter; and creation proper, which is the production of the entire being of a thing, presupposing no matter. The latter case, he says, "does not exclude infinite duration, either in the past or in the future, nor does it include it, for to presuppose nothing materially does not bespeak an order to something before or after in duration, but only ... destroys an order to

¹³ "... sicut illud quod est nunc se habet ad posse non esse nunc, ita quod est ab eterno ad posse non esse ab eterno, dummodo fiat a causa agente non de necessitate nature, sed illi quod nunc est actu non repugnat absolute posse non esse nunc actu, non propter aliquod impediens preexistens ... sed quia alterum oppositorum non determinatur de necessitate in esse. Ergo a simili ei quod est ab eterno non repugnat posse non esse ab eterno, licet nullum impediens precedat, dummodo non fiat ab agente ex necessitate." *Ed. cit.*, fols. 30vb-31ra.

any presupposed matter. Therefore, creation from nothing neither excludes nor includes duration, either in the past or in the future."¹⁴ He then goes on to note that if the word "ex" imports an order to a terminus *a quo*, there is a recession from the terminus through the act of making. If "a creature is made from nothing" means "a creature is a recession from nothing" or from non-being *simpliciter* as from a terminus *a quo*, it is false. For nothing is said to recede, through the process of making,

from some terminus except what was subjectively under it, as is clear in whitening. For we do not say that white, through whitening, recedes from black, under which it never was. But we say that the subject of whiteness, which before was under blackness, recedes from blackness through whitening and tends toward whiteness. Whence if the subject of whiteness were made completely whatever it is through whitening, there would not be a recession from blackness toward whiteness as a result of whitening, but there would only be a simple and absolute reception of whiteness itself. And therefore, since neither a creature nor anything of a creature would ever have been a non-being with respect to a subject conjoined to it, it cannot be said absolutely that creation also makes a new recession from non-being, as from a terminus *a quo*, toward being, as a terminus *ad quem*, but only that it is simple and absolute reception of being itself after non-being, either by duration if it is new, or at least by nature.¹⁵

And so one cannot prove the newness of a creature from a terminus *a quo*, since creation does not have such a terminus *a quo*.

But if "a creature is made from nothing" is taken to mean "not from some terminus *a quo*, as if it were said that creation is a making which

¹⁴ "... non excludit durationem infinitam a parte ante, nec a parte post; nec etiam includit, quia nihil materialiter presupponere non dicit ordinem ad aliquid prius vel posterius duratione, sed solum, ut visum est, tollit ordinem ad aliquod materiale presuppositum. Ergo creatio per hoc quod est factio ex nihilo nec excludit nec includit durationem a parte ante vel a parte post." *Ed. cit.*, fol. 31ra.

¹⁵ "Unde nihil dicitur recedere per aliquam factionem ab aliquo termino nisi quod prius erat subiective sub eo, ut patet manifeste in dealbatione. Non enim dicimus quod albedo per dealbationem recedit a nigredine sub qua numquam fuit, sed dicimus quod subiectum albedinis quod prius erat sub nigredine recedit per dealbationem a nigredine et tendit ad albedinem. Unde si subiectum albedinis quo ad totum quicquid est in eo fieret per dealbationem, dealbatione non esset recessus a nigredine in albedinem, sed esset solum simplex et absoluta acceptio albedinis ipsius. Et ideo cum nec creatura nec aliquid eius unquam fuerit subiecto coniuncto ipsi non esse, absolute non potest dici quod creatio etiam novat recessus a non esse, sicut a termino a quo, ad esse, sicut ad terminum ad quem, sed solum quod sit simplex et absoluta ipsius esse acceptio post non esse vel duratione, si sit nova, vel saltem natura." *Ed. cit.*, fol. 31rb.

does not require anything existing under an opposite terminus from which, by creation, it might be deprived or recede," the statement is true. If the word "*ex*" imports having before and after, this can be understood either as prior by duration or prior by nature. If prior by duration, there are two ways of understanding; "a creature is made from nothing." It might mean either "after non-being by duration," or "after nothing preceding by duration." But this was not of necessity, either on the part of the maker or the thing made. Everyone concedes that it was not on the part of the maker, but it was not necessary on the part of the thing made either, because a thing made by creation does not have an order to anything pre-existing by duration. The fact that "creation was by duration after the non-being of the thing made was not because the nature of the thing required it, but only because of the will of the maker."¹⁶

The other way of understanding "a creature was made from nothing" is that it is made not after something preceding it by duration, and in this sense it is true,

provided however that by the word "*non*," it is not understood that it would be repugnant to a creature that something might precede it by duration, for this would be false. For the being of God preceded the being of the creature *de facto*, but only through the word "*non*" was the necessity of being after something preceding it denied, because it was not necessary that anything should precede the being of a creature by duration, although *de facto* something did precede it.¹⁷

Harvey's replies to opposing arguments for the most part repeat what he said in his Response, except for the eighth argument, the problem of infinite souls. Harvey bases his reply on Aquinas's remarks and borrows too from Godfrey of Fontaines, although he is more timid than Godfrey in not considering the possibility of the circulation of souls, nor does he repeat Aquinas's remark that no one has yet proved that God could not create an actual infinity.

James of Thérins, a Cistercian, composed a very interesting and perceptive question on the possible eternity of the world in his second Quod-

¹⁶ "Quod creatio fuit post non esse facti duratione non fuit propter naturam rei huius necessario exigentem, sed solum propter facientis voluntatem." *Ed. cit.*, fol. 31rb.

¹⁷ "... ita tamen quod per ly non, non intelligatur quod repugnet creature, tunc post aliquid duratione precedens, sic enim esset falsum, nam esse dei de facto precessit esse creature, sed solum per ly non negetur necessitas essendi post aliquid duratione precedens, quia scilicet non fuit necessarium quod aliquid precederet duratione esse creature, licet de facto aliquid precesserit." *Ed. cit.*, fol. 31va.

libet (question 9).¹⁸ Although it followed closely upon the highly partisan treatment of Harvey Nedellec, it is a model of moderation and theological professionalism. While most of the question is concerned with the arguments, concepts, and vocabulary of early fourteenth-century Paris, especially the works of William of Ware and Harvey Nedellec, it also carries us back to the 1220s and 1230s in treating the "two means" problem (even using the vocabulary of Philip the Chancellor and Alexander of Hales), and the mid-thirteenth-century *Sentences* commentary of Bonaventure, whose paradoxes of the infinite it incorporates, as well as Pecham's argument that if the world were infinite in duration, the part would be greater than the whole. But while it is comprehensive in the scope of the arguments it considers, it is usually quite perfunctory in its treatment of any one of them, assuming apparently that the reader (or auditor) was already intimately familiar with the details. But James reminds his audience of an obvious fact which seemed sometimes to have been lost sight of in the heat of partisan argument, that when one is arguing from a given hypothesis, it does not matter whether the conclusions are true, false, or impossible according to the Catholic faith, provided that the presentation is formally correct and true, granting the hypothesis;¹⁹ and to this warning he appends an advanced logic lesson, buttressing his position by quoting the unlikely authors Augustine and Richard of St. Victor.

James follows Harvey Nedellec, in thought if not in tone, in holding that no contradiction arises from the supposition of an eternal (that is, beginningless) creation. Nor does he see that an eternal creation would compromise God's freedom. The last portion of the question, which he promised in his Preamble would be a response to the many difficulties plaguing discussions of the eternity of the world, is disappointing, in that it summarizes a wide range of difficulties but offers little by way of clarification. He apparently meant to indicate that although his question determined correctly within the limits imposed by academic disputation, there were still many difficult problems to be solved.

Obviously from the same milieu comes the anonymous brief question, *Utrum mundus potuerit produci ab eterno*, contained in Assisi codex Biblioteca comunale 172, folios 136r-v.²⁰ This question is fragmentary, ap-

¹⁸ James of Thérins, *Utrum emanatio primarum creaturarum immediate a deo potuerit esse ab eterno*, Paris, Bibl. nat. MS lat. 14565, fols. 43ra-46ra.

¹⁹ "Intelligendum est autem pro secunda ratione quod ad efficaciam probationis quando aliquis arguit ex ypotesi, non refert utrum catholice sint vere vel false vel impossibiles, dum tamen ypotetice sint vere." *MS cit.*, fol. 45ra.

²⁰ I intend to publish this question in the collection of unedited texts on the eternity of the world which I am preparing in collaboration with Omar Argerami.

parently written up from a poor *reportatio*. It begins by distinguishing three kinds of beings: *permanentia*, which can exist from eternity; *successiva*, which cannot; and *raptim transeuntia*, which probably cannot. The second section of the *quaestio* discusses largely whether *successiva* can exist from eternity, and then goes on to the third category.

The structure of the *quaestio* is defective. There is no indication of where the Response begins; many of the responses are to arguments which were not presented in the earlier portion; and many of the arguments of the earlier portion are ignored.

Although none of these arguments is developed to any extent, many are related to those of other contemporary masters. The concept of motion as the aptitude for taking on various degrees of the same form was much discussed in the arts faculty in the early fourteenth century. The author is also aware of Bonaventure's statement that the essence of time is contained in an instant and Matthew of Aquasparta's argument that if time did involve a movement from potency to act, it would not be time.

Bonaventure's argument that there cannot be an infinite mean between two termini is also taken up in a slightly different form; this was used in one form or another by most masters who treated this question. Another frequently employed argument concerned the eternal generation of the Son by the Father. In his response to this argument, our author used a notion which came ultimately from Robert Grosseteste's *De finitate motus et temporis*, and which Ware had cited from his commentary on *De divinis nominibus*, that the eternal and the temporal do not fall under the same measure.

The sources used by our author are few and commonplace: Thomas of Aquino, Henry of Ghent, Robert Grosseteste, Anselm, Averroes, and Aristotle. The penultimate paragraph also has some interest. In itself it is dialectically primitive: "There are infinite eights in infinite twos; otherwise, if there were not, there would be a finite number; but a finite number of eights cannot also be infinite; therefore, an infinite number of twos can only be designated as infinite; it follows therefore that infinities are not more or fewer." Henry of Harclay uses the same numbers, two and eight, in his much more penetrating investigation of the properties of infinite sets in his own *quaestio* contained on folios 149r-152r of this same codex.

The final sentence of the *quaestio*, responding to an argument which was not given, denies that the infinite is traversed properly speaking because its parts were not designated. This was also much more ably treated by Henry of Harclay, and the answer given in brief form by our anonymous master is essentially the same as that developed at great length by William of Ockham.

We have not investigated the teaching of the artists since the battles of the 1260s and 1270s, and indeed there seems to have been a general disinclination during the last quarter of the thirteenth century for the artists to debate questions which would arouse the wrath of the authorities. Stuart MacClintock has called attention to four commentaries on the *Ethica*, dating from "shortly after 1277" to about 1300,²¹ all of which treat the question of human happiness in this life in an Aristotelian manner and which specifically distinguish between the methods and subject matters of philosophy and theology. He does not think that the condemnation of 1277 had any appreciable cowering effect on the independence of the Parisian artists. I think that this is still an open question, but it seems that for at least a decade after 1277, both artists and theologians were reluctant to test the ecclesiastical authorities. Even the Parisian Dominicans waited until 1286 before they pledged themselves to promulgate the teaching of Aquinas. And in any case, it was not till 1307-9 that we find an artist upholding the philosophical validity of Aristotle's doctrine on the eternity of the world. This was in the *Quaestiones in libros Physiconum* of Bartholomew of Bruges, who chose to discuss the question: *Utrum primus motus sit aeternus*. In Bartholomew's question we find re-emerging the position so forcefully but futilely argued by Boethius of Dacia forty years earlier:

For indeed the Catholic faith posits that the world began and will come to an end. ... However, it did not begin through motion, but through a causation which can only equivocally be called "being made." And God made the world *de novo* because it pleased him. ... And we ought not to seek the cause of this, because there is no cause of his will, or if there is, it does not fall under our understanding. ... That all things will come to an end and other similar statements which are made about things in the sky and on the earth, we ought to grant and believe by faith to be said equivocally. But another way [i.e., that of the natural philosopher] brings us closer to those things which are grasped from sensible objects by human thought. But divine reason prevails over human arguments. And that is what it seems must be said about the question at present.²²

²¹ Stuart MacClintock, *Perversity and Error: Studies on the "Averroist" John of Jandun* (Bloomington, Ind., 1956), pp. 73-76.

²² Verumptamen fides catholica ponit quod mundus incepit et deficiet ... tamen non per motum incepit sed per causationem quae non dicitur fieri nisi equivoce, et quod Deus fecit mundum de novo quia placuit ... et quod non debemus petere causam huius quia nulla est causa voluntatis suae vel si sit non cadit sub intellectu nostro. ... et quod

But by far the most notorious of the Parisian artists during the early fourteenth century was John of Jandun. He began his regency in the arts faculty in 1310, and most of his commentaries on Aristotle were written during the next decade. In 1315 he composed his *Quaestiones in libros Physicorum*,²³ and near the beginning of book 8 he chose to discuss the question *Whether motion is eternal*.²⁴ The philosophical content of the question is disappointing. John does nothing but cite the opinions of Aristotle and Averroes on each point that arises. He fails to take seriously the very able arguments of the theological faculty, either of the thirteenth century or of his own day. In fact he often seems ignorant of them, and the views he chooses to refute all date from the mid-thirteenth century and are those to which he can find ready-made rebuttals in Aristotle and Averroes. He spends considerable time refuting, by citation of Aristotle and Averroes, Grosseteste's argument that there could have been a first instant of time just as there can be a first point on a line,²⁵ and in fact he returns to this point at the end of the question and tries to construct an argument which would make it possible. But he completely ignores the infinity arguments of Bonaventure, probably because here Bonaventure had "turned Aristotle against himself."²⁶ His tone throughout is contemptuous of his opponents, whom he characterizes as quibblers and sophists. Still, he concluded his Response with a disclaimer, similar in much of its phraseology to that of Bartholomew of Bruges, which in many ways reproduced the positions of Boethius of Dacia and Siger of Brabant:

It must also be considered that although Aristotle and the Commentator thus say that motion has always existed and will exist, as has been shown, nevertheless I say according to faith and truth, and I determine this similarly, and I confess undoubtedly that motion began and will be terminated, and not only does motion have a

omnia de fieri et huiusmodi talibus quae dicuntur de inferioribus et superioribus sunt equivoce dicta, hoc est quod debemus cedere et credere secundum fidem. Sed alia pars magis appropinquat hiis quae capiuntur ex sensibilibus per ratiocinationem humanam, sed ratio divina praevalet rationes humanas et illud est quod videtur de quaestione dicendum ad praesens." MS Vat. lat. 845, fol. 151va, printed in MacClintock, *op. cit.*, pp. 167-68.

²³ MacClintock, *op. cit.*, pp. 110-11 convincingly establishes the date.

²⁴ MSS Vat. Reg. lat. 1342, fols. 122ra-124rb and Oxford, Bodl. Canon Misc. 404, fols. 103va-106ra.

²⁵ See Grosseteste, *De finitate motus et temporis*, pp. 261-62; also Richard C. Dales, "Robert Grosseteste's Place in Medieval Discussions of the Eternity of the World," *Speculum* 61 (1986), pp. 552-53.

²⁶ The phrase is that of Richard Sorabji, *Time, Creation & the Continuum*, p. 214.

beginning of being, but also all other beings which were made after they were not by the first principle, which is God; not indeed by a "making" properly so called and univocal with "makings" which now occur, that is, through transmutation and motion, but by a "making" understood completely equivocally, without motion and transmutation and without a subject. And thus before the first motion there was not some [prior] motion, because the production of the mobile itself was not a motion nor did it succeed a motion, nor did it have a prior subject, nor is any receptive potency presupposed for that productive potency. And therefore the reasoning of Aristotle is not pertinent. Also motion will be terminated and the mover and mobile will remain in eternity for this reason, that the first mover moves by will, and therefore it is possible for motion to cease without any innovation in the mover and the mobile.

But I do not prove this conclusion by a demonstrative argument, just as I do not prove the other arguments which we hold on faith and which are deserving of belief, nor do I think that it possible for a human being to demonstrate them from sensible principles or from things taken from sense experience.

And the argument concerning time is solved, because there was an instant which was thus the beginning of time which was not an end [of another time] and there will be an instant which will not be the beginning of another subsequent time. And [thus] it follows, against the argument that that instant is compared to time just as a point to a circular line, but it is incomplete, like a semi-circle or something of this sort, but not as a point to a completed circular line.

And [in reply to] what the Commentator says, that it is impossible for an instant to exist at the end of any motion, ... I say that nothing is impossible for the omnipotent God, and many things seem impossible to men which are possible according to the supreme and blessed God.²⁷

²⁷ "Est etiam considerandum quod licet Aristotiles et Commentator sic dicerent motum semper fuisse et fore, ut ostensum est, tamen dico secundum fidem et veritatem, et hoc similiter determino et indubitanter confiteor quod motus incepit et terminabitur, et non solum motus habuit initium essendi, sed etiam omnia alia entia a primo principio, quod est deus, fuerunt facta postquam non erant, non quidem factione proprie dicta et univoca cum factionibus que nunc contingunt, scilicet per transmutationem et motum, sed factione omnino equivoce dicta sine motu et transmutatione et sine subiecto. Et sic ante primum motum non fuit aliquis motus, quia productio ipsius mobilis non fuit motus nec sequens motum, nec habuit subiectum prius, nec illi potencie productive presupponitur aliqua potentia receptiva. Et ideo ratio Aristotilis non procedit. Motus etiam terminabitur et remanebit motor et mobile in eternum per hoc, quod ipsum movens primum movet per voluntatem, et ideo potest desinere motum, sine omni innovatione sui et mobilis. Istam autem conclusionem non probo ratione demonstrativa sive nec alias quas fide tenemus et quas credendo mereruntur, nec puto quod

The influence of Boethius of Dacia, Siger of Brabant, Thomas Aquinas, and Maimonides is evident in the first part of this essay. But John's remarks at the the end betray a considerable difference in attitude. After having made the distinction between creation and temporal making, he nevertheless attempted a rational accommodation, however inept, between faith and reason on the problem of the first and last instants of time. And after citing Averroes to the effect that it is impossible for time to have a first or last instant, he adopted a stance which would not have been acceptable in the thirteenth century, namely that omnipotent God can do that which is impossible, without the qualifying distinction between the natural and supernatural.

I do not discern in this disclaimer the "sneering incredulity" of which Gilson accuses John.²⁸ John's position was not new; it had been fully developed during the 1260s and 1270s. It had survived the 1277 condemnation and had been used during the late thirteenth century. The formulation of the distinction between the methods and subject matters of philosophy and theology which we find in Bartholomew of Bruges would become the "standard form" in the fourteenth century. It recognized, as did the theologians, that the laws of nature were not pertinent to the understanding of supernatural events, that God's will was inscrutable, and that God's power was not exhausted by the world which he had actually created. But still, it was the philosophical way which had the greater appeal for the artists, and according to this way the world, time, and motion must have been eternal.

But it was not his teaching on the eternity of the world which got John into difficulties. The question was no longer so central to the concerns of Latin thinkers as it had been forty years before, and although it would continue to be debated throughout the remainder of the fourteenth and into the fifteenth centuries, I have not found anything new or interesting

sit possibile homini demonstrare eam ex principiis sensibilibus vel assumptis a sensibilibus. Ratio etiam de tempore solvitur, quia fuit instans quod ita fuit principium temporis quod non finis et erit instans quod non erit initium alterius temporis subsequentis. Et consequenter contra hoc quod instans comparatur ad tempus sicut punctus ad lineam circularem, verum est imperfectam, sicut est semicirculus aut aliqua huiusmodi, sed non sicut punctus ad lineam circularem perfectam. Et quod dicit Commentator ... dico quod nichil est impossibile apud deum omnipotentem, et multa apparent hominibus impossibilia que sunt possibilia secundum deum supremum et benedictum. Quare, et cetera." MS Vat. Reg. lat 1342, fols. 104ra-rb.

²⁸ E. Gilson, *History of Christian Philosophy in the Middle Ages*, p. 523.

in these later debates.²⁹ New concerns relegated the eternity of the world to the fringes of Latin thought after the second decade of the fourteenth century.³⁰

Every good story should have a clear beginning, a development, a climax, and an end. But this story, like its subject, lacks an end. We can locate its beginning in antiquity; we can follow its development to the climactic events of the 1270s; and we can show some fruitful offshoots of the discussions of the main problem in the aftermath, especially in the fourteenth century. But the story does not end. The question has never been solved, nor has it been proved to be insoluble (although many of the best minds have taken this position). The question is still the object of lively debate in our own time, and the disputants are aligned in much the same way they were in the thirteenth and fourteenth centuries. Some, such as Whitrow³¹ and Van Steenberghen,³² hold that an infinitely

²⁹ Probably the best known thinker I have omitted is John of Naples, an ardent champion of the thought of St. Thomas, who disputed a number of questions related to the eternity of the world (see Glorieux, *La littérature quodlibétique* II, 159-71), and whose thought on the subject has been studied by Carl Johannes Jellouschek, O.S.B., "Verteidigung der Möglichkeit einer anfanglosen Weltschöpfung durch Hervaeus Natalis, Joannes a Neapoli, Gregorius Ariminensis und Johannes Capreolus," *Jahrbuch für Philosophie* 26 (1912), 155-87. Also worthy of mention are the Carmelite Sibert of Beka (Quodlibet I, 1, Paris, 1318: *Utrum aeternitati volitionis divinae repugnet aliquid velle de novo*, Vat. Borgh. lat. 39, fols. 242ra-245ra); the Dominican Bernard Lombardi, *Comm. in Sent.* II, Paris, 1327-28: *An mundum fuisse ab aeterno includat repugnantiam ad hoc, quod ratio infiniti contradicit praeterito* (see Stegmüller, *Repertorium* I, 53); and Nicolaus Biceps, *Comm. in Sent.* II, Prague, ca. 1381: *Utrum mundus fuit ab aeterno* (see Stegmüller, *Repertorium* I, 273).

³⁰ Interest in the subject did not cease, however; it simply reappeared in new contexts. The subsequent history of debates on the eternity of the world has been studied by Luca Bianchi, *L'inizio dei tempi: antichità e novità del mondo da Bonaventura a Newton* (Florence, 1987). There is also an excellent analytical summary of thought on the question from Bonaventure to the present in Francis J. Kovach, "The Question of the Eternity of the World in St. Bonaventure and St. Thomas -- A Critical Analysis," *South-eastern Journal of Philosophy* 5 (1974), 141-72. See also Majid Fakhry, "The 'Antinomy' of the Eternity of the World in Averroes, Maimonides, and Aquinas," *Museon* 66 (1953), 139-55.

³¹ G. J. Whitrow, "On the Impossibility of an Infinite Past," *British Journal of the Philosophy of Science* 29 (1978), 39-45.

³² Fernand Van Steenberghen has expressed his views many times. See his *Thomas Aquinas and Radical Aristotelianism*, pp. 1-27; "La controverse sur l'éternité du monde au XIII^e siècle," *Bulletin de l'Académie Royale de Belgique, classe des Lettres*, 58 (1972), 267-87; "Le mythe d'un monde éternel," *Revue philosophique de Louvain* 76 (1978), 157-77; and "Le mythe d'un monde éternel, Note complémentaire," *Revue philosophique*

old world is unintelligible and therefore impossible. Others, notably Popper³³ and Zimmermann,³⁴ hold on the contrary that a beginningless world is intelligible and implies no contradiction. It has also assumed a new relevance at the present time in both the abstruse cosmological speculations of modern astrophysicists and the religious fundamentalism of popular culture, and it remains an intriguing mystery.

de Louvain 80 (1982), 486-99.

³³ Karl Popper, "On the Possibility of an Infinite Past: A Reply to Whitrow," *British Journal of the Philosophy of Science* 29 (1978), 47-48.

³⁴ Albert Zimmermann, "Alberts Kritik an einem Argument für den Anfang der Welt," *Miscellanea Mediaevalia* 14 (1981), 78-88.

EPILOGUE

The question of the eternity of the world cuts across many disciplines -- philosophy, theology, logic, mathematics, and physical science, at the very least. The arguments concerning it during the Middle Ages involved a number of subordinate questions, which were often debated independently -- whether creation and conservation were the same, whether a change in a real relation necessitates a change in both members of the relation, the nature and ontological status of time, the relationship between the temporal and eternal, and whether the infinite can be added to, traversed, ordered, or exist in act, to name a few -- and they gave enhanced importance to these questions. The study of a single question is bound to provide a somewhat different picture from what one would get from a broader perspective, but the insights gained from such an exercise can be of value in helping us understand some aspects of the "big picture."

Nearly all the arguments against the possible beginninglessness of the world depended either on the implications of being created from nothing or on the contradictions alleged to arise from an infinitely old world. Both of these points are included in Bonaventure's *Sentences* commentary, but in spite of the fact that his "paradoxes of the infinite" attracted more attention then and now, more basic to his own thought was his conviction that being created from nothing necessarily meant having a temporal origin. This was the universal consensus of Latin authors until Aquinas, even Albert the Great having expressed it on several occasions.¹ It seemed so self-evident that the arguments given in support of it during most of the thirteenth century were perfunctory. If a creature was made from nothing, it must have passed from being nothing to being something, and *ex nihilo* was considered to mean *post nihil*. Aquinas's ex-

¹ "... facere suum [sc. Dei] est completa voluntas ad hoc quod res sit quae modo non est, vel ante non fuit: et hoc agere dicit creare." *Comm. in Sent.* 2, 1, A, 6, *Opera omnia*, ed. Borgnet, XXVII, 20; "Unde constat, quod cum dicitur, *creatura fit ex nihilo*, praepositio *ex* notat ordinem durationis ejus quod est nihil ad creaturam, ita quod nihil fuit privativum omnis esse creaturae et durationis ejus." *Summa theologiae* 2, 1, 4, ed. cit. XXXII, 108; "... secundum rem creatio nihil aliud est quam relatio quaedam rationis, quae est in creatura ex hoc quod incipit esse post nihil." *Summa de creaturis tract.* 1, q. 1, art. 2, ed. cit. XXXIV, 311b. I am indebted to Steven Baldner for pointing these places out to me.

planation of how a creature might be nothing in itself and nevertheless have eternally depended utterly on God for its being necessitated providing a stronger case for what had seemed to be a self-evident proposition. Henry of Ghent attempted to provide such an argument, but in doing so he relegated creatures to the status of absolute non-beings. Also, by failing to keep in mind God's simplicity and atemporality, he denied that God could have freely created a beginningless world, although he granted that if creation had resulted from the necessity of the divine nature, the world would necessarily have been without a temporal beginning. The most satisfactory (as well as difficult) philosophical justification of the necessity of a creature's temporal beginning was provided by William of Ware, who denied Henry of Ghent's teaching on a creature's non-being and endeavored instead to prove that a creature's *posse non esse* must precede its *posse esse*, so that the world must have not existed before it existed, not in the sense that any time preceded its existence, but that there was a first instant in which it began; and this provoked several very able rebuttals, especially that of Harvey Nedellec. Henry of Ghent's exaggerated notion of a creature's non-being was corrected by William of Ockham, who pointed out that a creature had at least to be a possible being *ex se*, or not even God's power could make it a being.

But it was the series of arguments concerning the impossible consequences of an infinite past time which stimulated some of the most brilliant thought we have encountered in this study. Most of these arguments were contained in Bonaventure's *Sentences* commentary, but the argument holding that on the assumption of infinitely extended time, the part would be greater than the whole, was passed along, if not devised, by John Pecham. These hold that there can be no order in the infinite, since there is no first; that an infinite series cannot be got through; that the infinite cannot be added to; and that the infinite cannot exist in act, but only in potency. Beginning with Godfrey of Fontaines's analysis of the infinite division of the continuum, through the work of Harclay and Wylton in the early fourteenth century, the assumptions underlying these apparent *impossibilia* were given close critical scrutiny, and a significant beginning was made in specifying the properties of the infinite. The most useful concept in this was Thomas of Wylton's distinction between the *infinitum simpliciter* and the *infinitum quo*. He showed that an infinite series with one terminus could have its members ordered with respect to this terminus. And he pointed out that although an addition or subtraction within an infinite set would neither increase nor decrease it, an addition could be made beyond the one terminus. On the matter of the traversal of the infinite, first Harclay, somewhat confusedly, and then Wylton, with more precision, showed that there was no impediment to an infinite series's being traversed in the direction of its ter-

minus, and Ockham pointed out further that the infinitely many past years were never "to be got through."

The only one of the *impossibilia* which seemed necessarily to imply the present actual existence of an infinite multitude was the problem of infinitely many departed human souls. The standard rebuttal, which Algazel himself had used and which is also found in Averroes, was that while in a series of causes and effects ordered *per se* and not *per accidens*, an infinite regress was impossible, nevertheless a series ordered only accidentally might be infinite, and a series of fathers and sons is of this type. This rebuttal has certain obvious weaknesses, which were seized upon by all those maintaining the position that the world could not have been eternally created. But the argument itself also has flaws, since even if one admits that an infinite multitude could not exist in act, one must make the assumptions that each man must have a unique soul and that the soul can be demonstrated to be immortal, or the consequence of an infinite multitude does not follow. This was pointed out by Godfrey of Fontaines, Peter of Auvergne, and Henry of Harclay. But the most satisfactory rebuttal to the infinite souls argument was given by Thomas of Wylton, building upon the foundation laid by Harclay, that an infinite multitude does not imply a contradiction. Unfortunately this tradition of thought concerning the infinite was not maintained, and there seems to be no obvious continuity between medieval and modern thought on the infinite. However, we have brought to light some first-class thinking on the subject in addition to that which has been discussed in the two most recent general works on the subject.²

Underlying all these discussions is the concept of time. The two principal sources for this subject in the thirteenth and fourteenth centuries were Aristotle and Augustine, who surprisingly agree in several respects. For instance, they both admit that there is a sense in which time is subjective (Aristotle, *Physica* 4, 14, 223a; Augustine, *Confessiones* 11, 18-20), and they both tie time very closely to motion. But Aristotle's analysis indicated that time could have neither a beginning nor an end, whereas Augustine had vigorously asserted that time began with the creation. This question of whether time could be limited was the central issue. William of Durham had noted that it could not be bounded by any intrinsic principle, because of its own nature it was beginningless and endless, but it was terminated by an extrinsic cause. Alexander of Hales had taken this over from William, and he used it side by side with the position of Maimonides without attempting any sort of synthesis. Grosse-

² *Infinity and Continuity in Ancient and Medieval Thought*, ed. Norman Kretzmann (Ithaca, N.Y. and London, 1982) and *The Cambridge History of Later Medieval Philosophy*, ed. Norman Kretzmann, Anthony Kenny, and Jan Pinborg (Cambridge, 1982).

teste insisted on the possibility of the beginning of time by making an analogy between the first instant of time and the first point on a line, and Bonaventure took this over from him. As late as 1314 John of Jandun was still trying to devise an explanation of how time might have termini.

A related question was time's ontological status. At one extreme, Eudo Rigaldus considered it not to be a thing created *per se*, but existing only *per accidens*, while at the other, John Pecham and Matthew of Aquasparta considered it to be a creature, so that if time were infinite in the past, a creature of infinite magnitude would exist. Most thinkers however took the middle position that only the "now" of time has any present existence; since neither past nor future time exists now, an infinite past time did not in itself entail the existence of an actual infinite, although certain consequences of an infinite past time (i.e., effects produced by infinite revolutions of the heaven, infinitely many departed souls) might do so.

Augustine's conflation of Platonic with Judeo-Christian notions caused great difficulties for many thinkers, who could not help conceiving God's duration as a sort of motionless and unchanging temporal extension, and some of the least able among them insisted that God had preceded the world by duration as well as by nature. John Pecham seems to have been the first to realise the incoherence of this position, and he made a distinction between intensive and extensive duration, but neither he nor those who followed him were able to maintain this distinction consistently. To some extent, Matthew of Aquasparta seems to have been aware of the problem and tried to work out a more satisfactory concept of duration, but it was Theodoric of Freiberg who explicitly faced the difficulty and attempted a drastically different way of conceiving duration: as "presentiality" rather than temporal persistence.

Closely related to this was how to relate the durations of temporal and atemporal beings. This was one of the few areas in which Philip the Chancellor had not pointed the way; he said only that the "now" of time and eternity was the same, flowing for time, remaining fast for eternity. But already in the questions of William of Durham the difficulties of this position had been realized, and Alexander of Hales, William of Baglione, John Pecham, Eustace of Arras, and Theodoric of Freiberg all contributed to a partial solution of what is probably an insoluble problem.³

³ I have devoted an article, "Time and Eternity in the Thirteenth Century," to this problem.

It is more difficult to document the attitudes and motives of human beings than it is the specifics of doctrine. But in this area too our investigation suggests some tentative conclusions.

It has been impossible in this study to document anything which might be labelled the Franciscan position, except in the very loose sense that with the exception of William of Ockham all Franciscans held that to be a creature meant coming into being after having not existed, and even on this point there was some disparity. But with this exception, there was no unanimity among Franciscan thinkers.

It was essential to Bonaventure's thought that philosophy employed in the light of faith was a useful and sometimes necessary tool for ascertaining truth. But succeeding Franciscans did not always adopt this stance. Some denied the value of philosophy altogether and vilified the philosophers, while some gave exaggerated importance to it in claiming that the truths of faith, especially the impossibility of a beginningless world, were capable of infallible philosophical demonstration; and William of Alnwick took the interesting position that the principles of the philosophers themselves supported better the position of the Christian faith than they did the doctrines the philosophers drew from them.

Bonaventure had also argued that creation from nothing necessarily implied a temporal beginning, but he conceded that if one admitted the pre-existence of matter an eternal world was an intelligible possibility. Both Richard of Middleton and Peter of Trabes denied this and insisted that "being made" itself, whether from nothing or from pre-existing matter, necessarily entailed a temporal beginning.

Most Franciscans made some use of the *ad impossibile* infinity arguments of Bonaventure's *Sentences* commentary, but usually to substantiate a position not held by Bonaventure, that the impossibility of a beginningless world could be demonstrated. The most able of Bonaventure's successors, William of Ware, ignored these arguments and concentrated instead on trying to provide a sound philosophical basis for Bonaventure's insistence that creation from nothing necessarily entailed a temporal beginning.

Nor can we say that there was a Dominican position. Albert the Great was not particularly interested in the problem, but he did say on several occasions that a beginningless creation was an intelligible possibility, although he also, restricting himself to the Christian meaning, defined creation in such a way as to deny this (see above, note 1). And even after the Dominican General Chapter of 1286 enjoined the defense of Aquinas's doctrine upon all Dominicans, Thomas's teaching on the possibility of a beginningless world was not one of his positions which they rushed to defend.

Much less was there a secular position, nor would one be inclined to suspect that there would be among a group of masters united only occasionally by their opposition to the Mendicants of any Order.

In addition to these points, I do not see that there is anything to be gained by referring to our authors as Augustinians or Aristotelians in this matter. All authors cited and used both authorities extensively, and I have found no one who accepted intact the thought of either, a circumstance which was intensified by the custom of citing snippets of authorities and often ignoring context. One of the most characteristic of Augustine's doctrines concerning time was that there was no "before" the creation, and that God preceded the world only by nature and not by any duration of time (*Confessiones* 12, 29); whereas one of the determinative positions of the extreme conservatives was that God did precede the world by duration. And a major element of many conservative arguments was Aristotle's definition of the infinite in *Physica* 3, 7 (207b); and his dictum that in perpetual things *posse* and *esse* do not differ was frequently cited with approval by conservatives, including Henry of Ghent.

This study has also raised questions about the role of Aristotle in thirteenth and fourteenth-century thought. At least as far as the eternity of the world is concerned, we must say that there is an incongruity (frequently noted elsewhere) between the picture one gets from looking at the texts of the various condemnations in the *Chartularium Universitatis Parisiensis* and the texts of the debates, whether in *Sentences* commentaries or disputed questions. It was not the reacquisition of Aristotle's natural philosophy which occasioned disputations about the eternity of the world; rather it was Lombard's *Sententiae*, whose sources were patristic, not Aristotelian. Those masters who perceived anything dangerous in Aristotle's natural philosophy were in the clear minority, and most intellectuals of whatever stamp cited these works as authorities, with little or no hint that they were in any way dangerous. The sources for both the pro and con arguments of the early disputations were all patristic, taken especially from Augustine and Boethius. When Aristotle was brought into the discussion, he was as likely to be cited on one side as the other. In fact, throughout most of the thirteenth century there was much honest disagreement about what Aristotle's teaching on the eternity of the world was. It was Philip the Chancellor, undoubtedly drawing on Maimonides, who as early as ca. 1230 exonerated Aristotle of teaching anything contrary to the faith, because he was describing only the world of nature and the laws according to which it operates, and he did not touch upon such supernatural events as creation. This viewpoint was widely held by masters of all shades of opinion until the 1270s, when it was misunderstood by the ecclesiastical authorities of Paris as constituting a doctrine of the double truth. It survived the period of the condemnations however

and reappeared on the faculty of arts in the late thirteenth and early fourteenth centuries, when it became almost a ritualistic formula whenever a conclusion of natural philosophy differed from the tenets of Christianity.

Quite apart from the distinction between the natural and supernatural realms, there was considerable question as to what Aristotle had taught concerning the eternity of the world, and many very able thinkers, including Aquinas during most of his career, followed Maimonides in denying that Aristotle had taught the eternity of the world as a demonstrated truth, but only as a more probable position than the alternative. One finds questions on what Aristotle's true teaching on the eternity of the world was as late as the 1330s, but from the third quarter of the thirteenth century onward, I do not know of any author who still argued that Aristotle had not taught the eternity of the world as a fact.

One might well wonder why, since everyone agreed that the world was in fact created temporally by God, these scholastic thinkers became so exercised by the question of whether God could, if he had chosen, have created a beginningless world, since in any case he did not. The subsidiary questions to which this gave rise were important and fully merited the attention given them. The question itself is of some hypothetical interest, but it is hardly basic to Christian belief. The most important divergence of views was between, on the one hand, the positions of Grosseteste (that the philosophers, blinded by their attachment to the corporeal world, were unable to attain the true insights provided by the Christian faith) and the similar view of Bonaventure (that philosophy used without the guidance of faith could only lead to error) and, on the other, the stricter separation of the realms of nature and supernature which one finds in the works of the artists and, with some qualification, of Aquinas.

It seems that the underlying cause of the conflict was strong personal and partisan animosity, which one finds first expressed in the questions of William of Baglione, and that when Bonaventure returned to Paris in the late 1260s, already genuinely concerned about the developments on the arts faculty, he was obliged by his position to speak out against these developments, unfortunately using some phraseology borrowed from William of Baglione which seemed to implicate Aquinas with the artists. There can be no doubt that the philosophical party among the artists was a cause of grave and legitimate concern to many. The division on the arts faculty itself, the *De erroribus philosophorum* of Giles of Rome, and Aquinas's *On the Unity of the Intellect against the Averroists* give ample evidence of this, in addition to the official documents. But the problem of the possible beginninglessness of the world should not have generated so much heat if there had been any general disposition toward accommodation. Aquinas must share some of the blame for this, since his barb

in *De aeternitate mundi* certainly infuriated many of his opponents and thirty years later still stung Peter of Trabes, who threw it, with a slight twist, back at its author. And at certain times the rivalry between the Franciscan and Dominican Orders undoubtedly played some part (although I consider it a minor part) in the controversy, especially in the *Correctorium* of William of La Mare and the literature to which this work gave rise, the decree of the Franciscan General Chapter that the works of Aquinas could only be used in teaching by mature masters having the complete *Correctorium* in hand, and the belated and qualified decision by the Dominican General Chapter to promulgate Thomist doctrine. But from the standpoint of an "internalist" history of ideas, it is difficult, if not quite impossible, to account for the notoriety of the proposition that God could have made the world beginningless.

Finally, it is necessary to point out that although, beginning with William of Baglione and continuing through Peter of Trabes and Harvey Nedellec, there was a good deal of overt animosity displayed in discussions of the eternity of the world, it is nevertheless true that a majority of the masters we have investigated were motivated simply by a desire to answer the question correctly. This is particularly evident in the *Sentences* commentary of William of Nottingham, who attempted to act as a peacemaker shortly after 1270, when the tension surrounding the teaching of the independent philosophers of the arts faculty was reaching its height. Also, the Franciscan William of Ware in the early fourteenth century treated the question dispassionately and comprehensively at just the time several masters of diverse affiliation began asserting once more the possibility of a beginningless world. And before 1320 William of Ockham upheld essentially the position of Aquinas, although he can hardly be considered as pro-Thomist in his general theological or philosophical orientation.

And so our study of medieval discussions of the eternity of the world has indeed shed some light on various aspects of scholastic philosophy and theology. But perhaps more importantly it has shown what the quarrel was not, at least insofar as it concerned the eternity of the world: it was not a personal quarrel between Aquinas and Bonaventure; it was not (simply) a battle between Franciscans and Dominicans; and especially it was not a metaphorical confrontation between Aristotelianism and Christianity.

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BGPM = *Beiträge zur Geschichte der Philosophie des Mittelalters*, ed. Clemens Baeumker (Münster i. W., 1891 ff.)

CCL = *Corpus Christianorum*, series latina (Turnhout, 1953 ff.)

CSEL = *Corpus Scriptorum Ecclesiasticorum Latinorum* (Vienna and other cities, 1866 ff.)

PL = *Patrologiae cursus completus ...* Series latina, ed. J.P. Migne (221 vols., Paris, 1844-1864).

RSPT = *Revue des sciences philosophiques et théologiques*

RTAM = *Recherches de théologie ancienne et médiévale*

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